PHENOMENOLOGICAL ASPECTS OF CHILDBEARING

By

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CHAPTER I

INTRODUCTION

Background

Childbearing, as a significant maturational period in a woman's life, provides "a kind of natural experiment in problem solving and crisis resolution" [Cohen, 1965, p. 18]. Crisis theory provides a potentially productive framework within which the psychological aspects of childbearing may be considered. Yet there is little research which has tested hypotheses employing the central constructs of crisis theory--the subjective "meaning" of the event and the role of expectation as components in problem solving behavior.

A recent review of the literature on psychological factors in pregnancy and delivery reveals that the major focus of research has been the use of the psychosomatic model in which psychological events are employed to predict either the physiological course of labor or the observed behavior of the patient during childbirth [Grimm, 1967]. Yet the author of the review states that "childbearing is an important period in a woman's own maturation and her reactions to its crucial events as they affect her personality development are per se worthy of study" [p. 3]. An almost exclusive emphasis upon behavioral and physiological descriptions of childbearing has neglected these experiential aspects of labor and delivery--that is, the woman's own response to this significant event. The present study was undertaken to investigate these subjective aspects of labor and delivery.

Criterion Measures of Labor and Delivery

There are three general ways in which labor and delivery have been described. First the parturient herself may be asked to describe or evaluate her experience. Second, her behavior can be described or evaluated by an observer. Last, progression of labor and delivery may be described in physiological terms.

The clinical evaluation of childbirth involves a consideration of the length of the stages of labor, the frequency and intensity of uterine contractions, the forces of labor, the position and presentation of the baby, the malleability of the fetal head, the resistance of soft tissue, and the physical condition of the mother and child [Kann, 1950; Klein, Potter and Dyk, 1950]. Specific syndromes or abnormalities represent combinations of these elements with decisions regarding obstetrical intervention [Stewart and Scott, 1953]. Easy and uneventful deliveries (vertex presentation with spontaneous delivery in 24 or less hours) are expected in 65 to 70 percent of all cases [Kann, 1950].

"Good Delivery Behavior," on the other hand, is a variant of the "Good Patient Role" which has cultural as well as specifically medical determinants. The perfect obstetrical patient is described by Stewart and Scott [1953]: "She remains calm, placid and quiet during the first stage, realizes well between the second stage contractions, follows instructions and cooperates well while being delivered, and shows a surge of maternal emotion toward the child which seems to obliterate memories of the labor." At the other extreme is the patient "who screams and struggles both during and between contractions, who is restless and uncooperative during the second stage and delivery and whose reaction to the child, if any, is rejection or antipathy as the cause of all her suffering" [p. 58]. Behavior is generally rated by attending physicians or nurses.

Where patient response is utilized as the criterion for evaluating labor and delivery, women are asked to judge their experience. Patient opinion has been employed extensively in studies evaluating various psychophysical regimes in childbearing [Buxton, 1962; Chertok, 1959]. The indiscriminate, sometimes even coercive use of "testimonials" purporting to "prove" the efficacy of particular procedures has made the use of subjective evaluation suspect [Mandy, Mandy, Farkas and Scher, 1952].

On the surface, it would appear likely to expect these three ways of viewing childbirth to converge evaluatively--that is, a clinically uneventful labor and delivery would correspond with "good delivery behavior," with the parturient having had a favorable experience. Then any criteria would be suitable to evaluate the event. But, as with all human events, childbearing is too complex for simple consistencies. An uneventful labor and delivery from a medical point of view might well be a terrifying experience for the woman, with possible effects on future childbearing. A woman may behave poorly from a management position but subjectively view herself as cooperative, as having fulfilled the expected role of a parturient, and evaluate her experience positively. There are studies in the obstetric literature, for example, in which women in labor for over 24 hours, defined as clinically abnormal and at risk, not only had experienced a less stressful labor than expected but impressed the staff with calm, cooperative behavior during the objectively viewed "ordeal" [Watson, 1959]. Employing behavioral and clinical criteria of labor and delivery, Klein, Potter and Dyk [1950] found consistency for the two measures for two-thirds of their series. The remaining one-third fell into the categories "good labor and delivery (clinical) with poor psychologic reaction (behavioral)" or "poor labor and delivery with good psychologic reaction." Freedman, Redlich, Eron and Jackson [1952], in a study investigating amnesia in labor and delivery, found patients indicating less anxiety and discomfort and saw themselves as more cooperative than ratings assigned by observers. The authors indicate that mothers' deviations were not necessarily error or evidence of amnesia: "The narrative interviews in which the subject gave uninterrupted recital of events and her subjective responses to them demonstrated that there were moments of excitement and elation, pleasure and pain and interpersonal relations unknown to some members of the staff" [p. 446].

The relationship between subjective pain assessment, behavior, and the clinical course of labor and delivery highlights the extremely complex interrelationship between criteria descriptions. The writer recalls an Indian patient who delivered her second baby in the United

States. She described how Indian women are expected to scream and writhe during delivery, such behavior attesting to the strength and health of the infant. Although she reported that her own delivery was not very painful, she felt the responsibility to "carry on" and to act "as if" she were in great distress, whenever her husband appeared in the labor room. Similarly, Buxton [1962] has questioned a reported "90 percent positive result" in psychoprophylactic training of Chinese women, inquiring into the cultural proscriptions on emotional control and fortitude during painful experiences. Russian investigators generally consider subjective assessment and behavior separately in assessing psychophysical preparations for childbirth. Chertok [1959] reports that behavioral results are twice as high as results evaluated by analgesia or alleviation of pain. Chertok believes that behavior results from "conscious, voluntary and active factors," while analgesic effects derive from "suggestion . . . or any other type of psychotherapy." But, he adds, these two types of effects are not acquired independently; there is "a constant interaction between them" and that "disciplined behavior, itself of great importance, can have an analgesic effect" [pp. 217-218]. Moreover, obstetricians submit that calm behavior facilitates the clinical course of labors. Medical decisions concerning analgesic agents are based not only on physiological factors but on the effects of the patient's behavior on the physician. The expectations and needs of both the obstetrician and the parturient exert an interactive influence upon what occurs in the situation. Thus, Hingson and Hellman [1954], reviewing 8,000 cases of labor and delivery, found interactional patterns between a woman's evaluation of her delivery, her evaluation of her physician and the method of analgesia employed.

It is apparent that subjective, behavioral and physiological evaluations of labor and delivery are complexly interrelated and are by no means identical. Traditional psychological research in childbearing has employed the prospective design in which psychological variables measured during pregnancy are used as predictors of labor and delivery outcome. "Outcome" is invariably defined physiologically (e.g., length of labor, gross complications) or behaviorally (e.g., amount of analgesia, cooperativeness of patient). Results have been largely negative and have been explained as defects in the experimental design. Yet investigators are beginning to be aware that part of the disparity in results lies not only in the confusion of criterion measures but in the neglect of "outcome" as defined psychologically. Brown [1964], finding no relationship between anxiety and length of labor, did find "that within a psychological context there are good relationships"; and Grimm and Venet [1966], reporting essentially negative results between a number of emotional and attitudinal measures during pregnancy with clinical and behavioral measures of labor and delivery, state that

> whether or not physical functioning is related to emotions and attitudes, it is important from a mental health standpoint, to determine what variables influence optimal adjustment particularly if they can be modified, since presumably optimal adjustment throughout the maternity cycle may influence the future well-being of both mother and child. [p. 27]

The orientation of the present study is this "mental health standpoint." The emphasis is upon the phenomenological aspects of childbearing. The variables selected as hypothesized predictors of outcome--favorable or unfavorable subjective reactions--have been derived from crisis theory. The experimental design of the study allows also for inclusion of certain psychological and social variables which have been found to be suggestive in their relationship to physiological and behavioral outcomes of labor and delivery. The study therefore permits an analysis of variables currently employed in studies of childbearing which heretofore have not been investigated with relation to the parturient's evaluation of her experience.

Crisis Theory and Childbearing

Crisis theory has developed from an examination of the "precipitating" causes of mental illness. Caplan [1964] notes that

> in many patients suffering from mental disorder, significant changes in personality development appear to have taken place during fairly short periods of crisis. These transitional points in their history have usually been characterized by acute psychological upset . . . which appear not to have been in themselves signs of mental disorder but rather the manifestations of adjustment and adaptation struggles in the face of a temporarily insoluble problem. Such problems have usually consisted of novel situations that the individual has not been able to handle quickly with his existing coping and defense mechanisms. The problems have been both serious and unavoidable, such as the death of a loved person; loss or change of a job; a threat to bodily integrity by illness, accident, or surgical operation; or change of role due to developmental or sociocultural transitions, such as going to college, getting married, and becoming a parent. [p. 35]

"Crisis" is defined as a situation in which one's usual methods of coping are no longer effective--a situation requiring new problem-solving behaviors. Unlike earlier concepts of trauma which were assumed to predispose the individual to pathology, the assumption of the crisis model is that crisis is inherent in the human situation and does not necessarily imply morbidity. Any situation calling upon new methods of adjustment contains the possibility for mastery as well as the possibility of debilitation. The central concept of crisis is the individual's "definition of the event"--the subjective interpretation of the situation as threat, loss or challenge.

Bibring and her associates [1959, 1961] define childbearing as a "normal crisis" of development. As in puberty and menopause, pregnancy is a critical period of maturation when profound psychological as well as somatic changes occur. The outcome of the crisis is of the greatest significance for the mastery of the role of motherhood. Bibring states that the psychological organization achieved by the woman in adulthood undergoes a significant degree of dissolution as a response to pregnancy in order that "a recomposition to a new position not identical to that previously held" may be achieved. As a crisis, pregnancy has its regressive elements. Caplan [1964] has called attention, for example, to the schizophrenic-like images in the Rorschachs of pregnant women and similarly McConnell and Daston [1961], utilizing Cleveland and Fisher's barrier-penetration concepts of Rorschach analysis, have noted the body-image distortions present in the protocols of pregnant women.

The psychoanalysts [Deutsch, 1945; Bibring et al., 1959, 1961; Heiman, 1965; Cappon, 1954] view pregnancy as a period of psychological repetition, specifically, the working through of the woman's earlier conflicts with her own mother. Cappon [1954] indicates that problems of identity are recapitulated: the pregnant woman as an extension of her own mother "regresses and wishes to be nursed once again and yet jubilates in the expectation of the final proof of emancipation" [p. 148]. The success of the new mother is her ability to assume the mothering role independent of her own mother. This interpretation has empirical support from Grunebaum and Weiss [1967], who compared women hospitalized for post-partum emotional problems with normal controls. Non-hospitalized mothers were primarily concerned with achieving their own independence from their parental families, while hospitalized mothers were not only more dependent but were preoccupied with the more basic problem of forming meaningful relationships with others.

Deutsch [1945] believes that one of the major sources of fear in childbirth resides in an unresolved and guilt-laden relationship between the pregnant woman and her mother. In the Klein, Potter and Dyk series [1950], women whose mothers had had a difficult delivery were also likely to have difficulties. "Where mother, sister and friends had had happy and satisfactory experiences during pregnancy and childbirth, the patient expected to have, and frequently did have, a similar experience. Conversely, where relatives had had unfavorable experiences, difficulties were often feared. Thus, family patterns influenced the woman's expectations of childbearing out of proportion to her current knowledge" [p. 70]. On the other hand, Chertok [1959] cites cases where women consciously disclaimed identification with their mothers who had had very painful, restless and disturbed experiences and then went on to experience labor "in a most calm and well-behaved manner." Ritson [1966] tested the hypothesis that a woman in labor will feel identified with her mother, particularly with her mother's experience of pregnancy and childbirth. In a retrospective design, women having had normal (N=21) and prolonged (N=21) labors were asked about mother's experience. In the normal group, 15 women indicated their mothers had had hard labors, while six indicated easy labors. In the prolonged group, ten recollected mother's difficulty, while 11 indicated their mothers had had easy deliveries. Ritson concludes that the mother's childbearing experience is not significant in predicting the daughter's performance in labor. Nonetheless, Ritson was surprised to find that women who had had long labors "did not in fact find it prolonged beyond their expectation."

The concept of expectancy is certainly not a new one in psychology. The role of expectancy has had research applicability in such diverse areas as aspiration level, experimenter bias, placebo effects, hypnosis, verbal conditioning and the effects of psychotherapy; it is central to Tolman's theory of learning and in the personality theories of Kelly and Rotter. Expectation appears to play an important role as well in the way a woman both approaches her labor and delivery and subsequently evaluates her experience. Janis' theory of psychological stress is particularly relevant to the childbirth situation since it specifies the kinds of pre-stress-impact behaviors which are associated with good or poor recovery or resolution of the stressful experience.

Janis [1958] defines psychological stress as the reaction to a physically dangerous event in which pain, bodily injury or death is anticipated. The way an individual psychologically handles the impending crisis during the pre-impact period is an important determinant for the outcome. Janis states that a "work of worry," similar to Lindemann's conception of "grief work" as necessary for normal resolution of mourning, is essential for successful outcome. This anticipatory rehearsal or imaginative construction of future events serves first to bind anxiety and later serves to reduce uncertainty at crisis impact. In his studies on people undergoing surgery, Janis found a relationship between magnitude of pre-operative anxiety, and the way a person handled his anxiety and his post-operative course of recovery. A curvilinear relationship was postulated between level of anticipatory fear and crisis outcome. Both extreme worry and denial of danger resulted in poorer outcomes. Both those persons indicating no fear of the impending surgery who confronted the event by joking or asserting its triviality, and those highly anxious patients who coped by distracting games and fantasies, had a higher probability of a longer post-operative course of recovery than did individuals with moderate amounts of anxiety who dealt pre-operatively by realistic rehearsal. Fear arousal appears to have "psychological innoculation" effects such that the individual is better able to understand the adversities of the stress episode. The person remaining unconcerned about impending danger fails to prepare for it by worrying. At impact, efforts at intellectual denial are no longer successful. According to Janis:

> The person then swiftly finds himself unable to ward off intense fear or fright (which sometimes is experienced as anger or other affects) especially because he has not developed any means for actively protecting himself from the danger. Moreover, the crisis seems to be augmented by the fact that when more danger or

> suffering is encountered than had been expected beforehand, feelings of helplessness are likely to occur which drastically interfere with normal reassurance mechanisms. [1965, p. 235]

There is clinical confirmation for Janis' theory in the psychiatric literature on childbearing. Straker [1954], for example, reports on 13 highly anxious women who were in psychotherapy prior to their deliveries. Their "preparation" consisted of exploring fears and attitudes, giving support, and, most importantly, "anticipating the details of the experience." To their "amazement," these women found their labors "short, calm, and easy." Kubie [1953], commenting on the value of pre-delivery preparation, indicates that when anxiety is not diminished by standard educational and supportive procedures, the anxiety is "neurotic" in nature, that is, its origin is unconscious and it is inaccessible to standard educational communications. For such women more intensive psychotherapy is indicated. On the other hand, Kubie alerts the obstetrician to those women who succeed in hiding their fears both from themselves and others. For these expectant mothers, a graphic and vivid image of childbirth must be presented. "Failure to educate her in the realities of this process may not bring into the open the hidden terror which she is trying to mask . . . " [p. 2509].

The relationship between denial and pathological response is central to Cramond's [1954] hypothesis of the "dysfunction temperament." Cramond found that women with severe uterine dysfunction, whose labors were over 24 hours in duration, were reserved, suspicious and had difficulty talking about themselves and their problems. They seldom showed any overt anxiety at interview or complained of the usual symptoms of anxiety but often gave histories suggestive of peptic ulcer and were rigidly conventional persons. In comparing 50 patients and their controls matched for height, age, parity, marital status, intelligence and social class, Cramond found differences between the groups in scores on the Minnesota Multiphasic Personality Index (MMPI) Lie Scale. Watson [1959] interviewed 25 dysfunction patients and, like Ritson, was surprised that, despite the excessive duration of labor (at least 23 hours), most of the women said it was not as bad as they thought it would be. According to Watson, these women expect either death for themselves or their babies in retribution for having indulged their tabooed sexual impulses and later having engaged in child-destruction fantasies during pregnancy.

> When delivery means death either to the baby or to the mother, there is only one logical solution: do not deliver. We know how near many of the women can come to achieving this resolution. No wonder they cannot discuss their problems or cry out for sympathy, when they feel they do not deserve it. No wonder they feel a sense of triumph when they have pulled off the impossible and survived the delivery of a living, healthy child. [pp. 600-601]

The relationship between expectancy, identification with mother's experience and evaluation of one's own labor and delivery is not simple correspondence. A clue to the factors operating here is indicated in a study by Levy [1966] whose conclusions are based on a comparison of childbirth expectations of Gravid I and II women (women expecting their first and second babies). It was found that for primigravidae, expectations of difficulty in delivery were similar to their perceptions of their mother's evaluation of childbirth. For women anticipating their second deliveries, expectations were in the reverse direction from the way they perceived their mother's evaluation.

Thus, if a primigravida recalled her mother's experience as "easy" she was likely to imagine her anticipated delivery would be easy. On the other hand, if a multigravida recalled her mother's experiencing easy deliveries, she imagined her anticipated second delivery would be a difficult one. Since the major difference between the groups was the experience of childbirth, the difference in anticipatory attitudes was likely to derive from the presence or absence of that experience. This was confirmed in the relationship between the multigravida's evaluation of her first delivery with her mother's evaluation which was found to be negative.

The following sequence of events is suggested. A mother's evaluation of delivery is the most influential information source a woman has concerning childbearing. It is not surprising then that in preparation for her first delivery, a woman imagines that her experience will recapitulate her mother's experience. Her own experience then becomes the most salient source of knowledge about childbirth. After delivery, the woman no longer organizes her conceptions of the childbearing process around her mother's experiences. Rather, her mother's evaluation is contrasted with her own. The aspects of independence and growth are reflected in this course of events.

In this discussion of the dynamics of uterine inertia, Watson [1959] comments on childbearing as a growth promoting experience which is capable of disconfirming and dislodging infantile beliefs. Particularly interesting are the facts that 85 percent of women undergoing prolonged labor are primigravidae and that the syndrome rarely reoccurs.

Watson believes that the psychological stress of childbirth is "a powerful and implacable stimulus" to a woman's reexamination of childhood beliefs that she must not indulge in sex, conceive a child and then wish to kill it without being destroyed herself. "Then, and only then, does such a belief become manifestly untenable. With this new knowledge, subsequent sexuality and childbearing can be free of this psychologic hazard" [p. 601].

If a mother's communication concerning the delivery experience is the prime source of information for the primigravida, then the kind of information communicated is related to the level of anticipatory fear. It was found in Levy's study [1966] that when a woman reported that her mother had communicated an unfavorable impression of childbirth, that the woman's own experience in delivery tended to be better than she expected. Moreover, she imagined her second delivery would be easier in comparison with the first. Conversely, when mother communicated favorably about labor and delivery, the subject tended to view her own experience as worse than she anticipated and further to imagine that her second delivery would be harder than her first. It would appear then that a negative evaluation by mother effects a more positive perception of delivery than does a positive one. Since mother's evaluation as perceived by the woman was shown to be largely the woman's anticipation of her own first delivery, it is probable that a negative or stressful preparation arouses a beneficial amount of anticipatory fear. However, it was noted that extremes in either direction, that is, recalling mother's experience as extremely positive or extremely negative, appeared to effect poor outcome for the woman. While the sample size precluded analysis, the tentative conclusion in accord with Janis' theory of crisis resolution is that extreme communications impede the necessary anticipatory work by reinforcing denial or fantasy mechanisms. While extreme positive evaluations may be perceived as reassuring, the effects appear to be deleterious by failure to transmit realistic information. Likewise, extremely negative evaluations may be too psychologically shattering to permit rehearsal of the ensuing stress.

Correlates of Physiological and Behavioral Criteria of Labor and Delivery

Studies in which social and psychological variables have been employed as hypothesized predictors of labor and delivery defined clinically or behaviorally have been, in general, inductive and atheoretical. The results of these studies are quite equivocal. As in many areas of research, differences in findings may be explained by differences in populations, design, instruments and analyses. Even when the same operational measure has been employed, there has been no attempt to replicate previous studies. While some investigators have controlled for the more obvious factors of parity, age and social class, others do not even report the characteristics of the sample. The results then are extremely difficult to evaluate. The variables discussed below were selected on the basis of the relationships found in the literature with physiological and behavioral determinants of childbearing.

1. Background variables. Age, educational level, social class and size of family of orientation have been found to be associated with various behavioral and physiological measures of labor and delivery. It is well known that women over 35 are considered to be obstetrically "at risk." All types of difficult labor, whether dysfunctional or mechanical, increase with age [Stewart and Scott, 1953). Werts and his associates [1965] indicate an age related maturity factor in the way women react to labor. Older women were calmer, handled their labors more favorably than did younger women. Thus, while the relationship between age and difficulty of labor (behaviorally defined) was negative and significant, the older women in Werts' sample also tended to be white, married, private patients, of high social class and better educated than the younger women. In order to disentangle the effects of these variables, Werts concludes that a "real" relationship exists between educational level and difficulty of labor. Thus, the only inference permitted is that insofar as older, white, married, private status, higher social class women happen to be better educated will they also demonstrate more favorable behavior. Werts believes that education "provides a person with means of better understanding and coping with new situations" and that more highly educated persons "learn expressive inhibition as part of the general deferred gratification pattern" [p. 242]. Kann [1950] has also found that education is positively related to good delivery behavior; and Scott and Thompson [1956] note a tendency for women in the higher socioeconomic classes to have consistently good self-control in labor and delivery.

The relationship between socioeconomic status and reproductive casualty is well documented and explained by differences in nutrition, susceptibility to disease and extent of prenatal care. The differences in length of labor between white and Negro primigravidae in the United States are recognized as class rather than racial or ethnic differences [Hendricks, 1967]. Illsley [1967] has criticized the use of "social class" as an absolute construct pointing out the continuous process of mobility in Western Society. It was found, for example [Illsley, 1955], that women brought up in the lower socioeconomic groups, who married professional or skilled workers, were healthier, gave birth to heavier babies and had fewer prenatal deaths than women who moved down the social scale at marriage. The genetic or constitutional correlates of social class are unknown at the present time. Illsley suggests that any study on childbirth using class constructs designates not only the status reached in adulthood (the husband's social status) but also the status in childhood (the father's social class).

Brown [1964] found that of a variety of background variables, the size of the family of orientation was negatively related to a primigravida's length of labor--that is, the larger the number of siblings, the shorter the labors. Brown suggests that "prior experience with other pregnancies . . . influences attitudes" and advises that a mother's experience may be salient information [p. 55]. In terms of family constellation, there have not been any investigations of the relationship between birth order and childbearing outcome.

2. Family planning and feminine role. There have been a number of studies which have investigated the relationship between a woman's attitude toward femininity and subsequent labor and delivery. Kapp, Hornstein and Graham [1963], in a retrospective design comparing patients who had undergone prolonged labors with matched controls, found attitudinal differences in the groups concerning motherhood, sex and marriage. Zemlick and Watson [1953] found that rejection of pregnancy and motherhood was significantly related to lack of adjustment during labor and delivery. Kann [1950] found that lack of change in sexual responsiveness during pregnancy was related to a favorable behavioral reaction in labor and delivery. The relationship between labor and delivery measures and the size of family desired, attitudes toward spacing of children and whether pregnancy was planned or unplanned, have not been investigated.

3. Sick role. Rosengren [1961] has conducted research on perceptions of pregnancy as illness or normal organic condition and consequently the role of the pregnant woman as a sick or well person. It was found that definitions of pregnancy as illness were related to difficulty in labor defined by length and gross complications. Grimm and Venet [1966] report that dependent-independent attitudes and the extent to which one experiences oneself as "sick" during pregnancy related to labor and delivery behavior with favorable and independent attitudes boding well for a good reaction in labor.

4. Activity level. There are several studies which have investigated the relationship between style of response and behavior during

labor and delivery. Most prominent is the extrovert-introvert dichotomy. Eysenck [1961], for example, found that extroverts were rated by observers as behaving more anxiously and hysterically during childbirth than were introverts. Similarly, Furneaux and Chapple [1964] found that women scoring high on scales measuring extrovertism and neuroticism required a greater amount of drugs than the group as a whole, suggesting that these patients were greater management problems, that is, made "more fuss."

Of a number of psychological measures administered to women in pregnancy, including the Minnesota Multiphasic Personality Index, Kann [1950] found that only the Hypomania Scale on the MMPI was related to observed behavioral ratings during labor and delivery. Patients who behaved poorly generally scored higher on this scale than did patients who behaved favorably. High scorers on this scale have been described as impatient persons, unable to stand boredom and exhibiting insufficient capacity for inhibition of action. Low scorers have been described as balanced, clear thinking, temperate and reasonable. The main determinant in these studies appears to be the style of response in the handling of stress.

5. Self-concept. The self-concept as a variable in labor and delivery outcome has not been investigated. Derived from "Self Theory" the basic assumption is that an individual's concept of self is a salient influence in his behavior. Snygg and Combs [1949] posit that the need to maintain and enhance the perceived self is the most powerful motive for all human behavior. Wylie's review [1961] of studies employing

self-concept indicates that differences in behavior are related to the person's perception of himself.

Statement of Purpose

The purpose of the present investigation is to test certain hypotheses derived from crisis theory employing the childbearing experience as the situation of stress impact. Specifically, the study focuses upon expectation of the stressful situation, identification of the parturient with her mother and levels of anxiety and denial with relation to crisis resolution. The study differs from most research on the psychological aspects of childbearing by its phenomenological approach, that is, the criterion employed in describing labor and delivery is the mother's own evaluation. Further, the inclusion of certain social and psychological variables, which have been heretofore only employed in studies utilizing physiological or behavioral evaluations of labor and delivery, allows an examination of the relationship of these variables with the subjective criterion.

Hypotheses under Investigation

Hypothesis 1

A woman's evaluation of labor and delivery as favorable or unfavorable is related to the perceived amount of stress which she has experienced relative to her expectation of stress.

A. Women who rate their deliveries as better than they expected will tend to rate their experience favorably.

B. Women who rate their deliveries as worse than they expected will rate their experience negatively.

This hypothesis is based on Janis' theory concerning preparation behavior in a crisis. According to Janis, at termination of the stress episode, the affective status of the person will depend on whether the amount of perceived suffering is more or less than was consciously expected before stress impact. If the amount of victimization is more than expected, the mood will be dysphoric (reactive depression); if less than expected, the mood will tend to euphoria (reactive elation). The present hypotheses assume that emotional reactions to the stress episode will be reflected in the woman's evaluation of her experience.

Hypothesis 2

Anticipation of the delivery experience as measured during pregnancy is positively related to the woman's perception of her mother's experience in childbearing.

This hypothesis is based on Levy's [1966] finding concerning identification patterns of women anticipating labor and delivery. For primigravidae, a relationship was found between the anticipated labor and delivery and the woman's perception of the mother's evaluation of childbirth. Thus, if a woman perceives her mother as having had a positive experience, she will tend to anticipate a positive experience; conversely, if the mother has conveyed an unfavorable impression of her labor and delivery, anticipation will be unfavorable.

Hypothesis 3

Evaluation of labor and delivery is not related to a woman's perception of her mother's experience in childbearing as favorable or unfavorable.

This hypothesis affords a test of the "growth potential" which is basic to maturational crisis theory. Levy [1966] proposed that, since women did not anticipate their second deliveries as they perceived their mother's experience, their own first experience was the salient aspect in differentiating their response from primigravidae. The present hypothesis is a direct test of this supposition that childbearing provides a situation of reality-testing for the woman and that her response is not a simple identification with her mother's experience.

Hypothesis 4

Women who receive information from their mothers concerning childbirth tend to evaluate their own deliveries more favorably than women who receive no information from their mothers.

The assumption here is that a woman's mother is the most important information source regarding the childbearing experience. If there is a failure to convey information concerning stress impact, the amount of victimization is likely to be greater than expected [Janis, 1958] and hence childbirth is likely to be negatively evaluated.

Hypothesis 5

Women who receive extreme evaluations from their mothers, either very negative or very positive, will perceive their own experience more negatively than women who receive moderate evaluations, either positive or negative, from their mothers.

This supposition derives from Levy's [1966] conclusions regarding the importance of the intensity of the communication. The theory is that extreme communications arouse both anxiety and denial mechanisms preventing adequate anticipatory work and hence stress impact is perceived as unfavorable.

Hypothesis 6

Women demonstrating high anxiety tend to perceive their childbearing experience more negatively than women demonstrating low anxiety.

This hypothesis is based on general crisis theory that highly anxious persons are unable to cope adequately with anticipatory rehearsal of stress and hence are more likely to encounter greater difficulty at stress impact.

Hypothesis 7

Women demonstrating high defensiveness tend to perceive their childbearing experience more negatively than women demonstrating low defensiveness.

As in Hypothesis 6, crisis theory proposes post-stress-impact difficulty when denial mechanisms prevent anticipatory work.

Other Relationships under Investigation

The following variables were selected for the present research, since there are indications in the literature of their relationship to behavioral or physiological criteria of labor and delivery. Specific hypotheses will not be formulated, since the relatedness between these variables and subjective ratings of childbearing have not been heretofore investigated. This aspect of the study is exploratory in nature.

The variables selected are as follows: age, educational level, social class, size of family of orientation, birth order, attitude toward menstruation, change in sexual desire during pregnancy, planned or unplanned pregnancy, size of family desired, ideal spacing of children, sick role, activity level, and self-concept.

CHAPTER II

METHOD

Subjects

Seventy subjects (Ss) were selected to test the hypotheses concerning expectation of stress with crisis resolution. The following specifications were met to control for variations associated with race, marital status and parity: All Ss were white, married, primigravidae with a negative history of reproductive casualty, i.e., none of the women had ever experienced abortion, miscarriage or still birth. In addition, all the Ss were sustaining normal pregnancies as defined by their physicians. The Ss ranged in age from 17 to 34 years with a median age of 23. Years of schooling ranged from 10 to 18 years with 90 percent of the sample having at least a high school education and 15 percent having completed college.

To control for variations in measurement found in previous studies to be associated with "time of pregnancy," all Ss received a Pre-Delivery Schedule in what they and their physicians considered to be the ninth month of pregnancy. Hence, all Ss completed this schedule at the most four weeks prior to their calculated "due date." Post-Delivery Schedules were completed between 24 and 72 hours following delivery.

The Ss were private patients of six Gainesville physicians, specializing in Obstetrics and Gynecology, who were affiliated with the same hospital. In a previous study [Levy, 1966], it was found that this type of setting was utilized by a wider age, educational and socioeconomic range of pregnant women than the other available obstetric settings in the area, and, moreover, insured that "hospital experience" was kept relatively constant for all patients. Of the six doctors, one was newly established and was practicing alone; two shared a practice, and the remaining three were also in partnership practice. While partners rotated their schedules and saw each other's patients prenatally, patients selected a specific physician. Although physician differences between the three offices and within the partnerships themselves doubtlessly existed, the obstetrical approach of these doctors was quite similar. Routine prenatal examinations were scheduled once a month for the first two trimesters of pregnancy; patients were seen on a two-week basis in months seven and eight, and weekly from thereon until their delivery. Patients were invited on a voluntary basis by their physicians to attend approximately four meetings at the hospital, dealing with the physiology of pregnancy and parturition, and care of the newborn, and generally included a tour of the obstetrics suite of the hospital. None of the physicians was a "natural childbirth" enthusiast and patients were not instructed in any prenatal psychophysical techniques. The approach of these physicians was "traditional" prenatal care of their patients. The kind of anesthesia and analgesia employed in labor and delivery was decided by the physician unless the patient specified a preference.

The 70 Ss who filled the specifications for the study were drawn consecutively from the physicians' rolls: nine patients were selected from Physician 1; 40 patients from Physicians 2 and 3; and 21 patients from Physicians 4, 5 and 6. Of the 70, 60 patients completed Pre- and Post-Delivery Questionnaires. One S refused to partake in the study and one S refused to complete the Post-Delivery Questionnaire. One patient failed to receive the Post-Delivery Questionnaire in the hospital. Seven patients delivered their babies before completion of Pre-Delivery Schedules, but completed Post-Delivery Schedules. Therefore, Pre-Delivery data are available for 62 Ss; Post-Delivery data for 67 Ss; and complete data for 60 Ss.

Materials

Pre-Delivery Schedule

This schedule administered in the ninth month of pregnancy contained the following instruments:

1. Evaluation scales. The Semantic Differential technique was employed to determine the expectation of labor and delivery as positive or negative experience. The underlying assumption of this technique is that certain important components of meaning can be measured by the rating of ideas, events or objects on a series of bipolar adjective scales which represent dimensions of the concept as determined by factor analytic procedures. Five adjective pairs were selected which have been shown to be relevant to the meaning of pregnancy and delivery [Levy,

1966] and which have moderate to high loadings on the evaluative dimension extracted by Osgood, Suci and Tannenbaum in their research reported in The Measurement of Meaning [1957].

A six-step scale with descriptive qualifiers at each scale point was employed to measure both direction and intensity of the response. The five attributes selected were: good-bad; pleasant-painful; happy-unhappy; comfortable-uncomfortable; and healthy-sick. Subjects completed these items for the concept "Anticipated Delivery."

2. The Taylor Manifest Anxiety Scale (TMAS). The TMAS consists of 28 dichotomous choice items derived from the Minnesota Multiphasic Personality Index (MMPI) by Taylor [1953]. Although originally designed as a measure of drive state under experimental conditions, the scale has been employed in a number of clinical situations and has been found valid in the assessment of situational anxiety. Davids and his associates [1961] have been strong proponents of the validity of the TMAS as an instrument sensitive in assessing psychological tension in a pregnant population. In comparison with several other scales and projective techniques, Davids found the TMAS superior in demonstrating a decrease in anxiety after childbirth, and a differentiation between pregnant women who later experienced complications or difficulty in delivery and women considered to have had normal delivery.

3. The MMPI Hypomania Scale. One of the nine clinical scales on the MMPI [Hathaway and McKinley, 1951], the hypomania scale consisting of 46 dichotomous choice items was designed to measure a behavioral pattern characterized by overactivity, emotional excitement and flight

of ideas. Kann [1950] found the scale statistically differentiated women having good and poor behavioral reactions to labor and delivery.

4. Tennessee Self-Concept Scale (TSCS). This 100-item scale was developed by Fitts [1965] as a measure of the self-concept. The scale is based theoretically on "Self Theory": that an individual's conception of himself is an important influence in his behavior. Total self-concept score reflects the overall level of self-esteem. The TSCS includes a ten-item self-criticism score derived from the Lie Scale of the MMPI which provides a measure of defensiveness and denial which is central in both Janis' theory of crisis and Cramond's description of the "dysfunction temperament." The TSCS has not been employed in a pregnant population [Fitts, Personal Communication].

5. Health Insurance Program (HIP) Psychosomatic Inventory. This inventory consists of 60 somatic symptoms which the respondent checks as present "often," "sometimes," "rarely," or "never," before and during pregnancy. This inventory was developed by Grimm and Venet [1966] and provides a measure for the way a woman views the state of her health.

6. Questionnaire. The questionnaire part of this schedule consists of background data (age, social class, educational level, etc.); data relevant to childbearing (number of children desired, ideal spacing); respondent's attitude toward menstruation; changes in sexual desire since pregnancy; and respondent's mother's evaluation of labor and delivery. (See Appendix B)

Post-Delivery Schedule

This schedule, completed 24 to 72 hours following delivery, contained the following instruments: a readministration of the Taylor Manifest Anxiety Scale, The MMPI Hypomania Scale, the Tennessee Self-Concept Scale and the five pre-delivery Semantic Differential Scales for the concept, "What My Labor and Delivery Was Like." In addition, a five-item Behavioral Scale was devised based on the work of Werts and his associates [1965] and Freedman *et al*. [1952] in which subjects rated themselves on their behavior in labor and delivery. Specific questionnaire items elicited information regarding length of labor, evaluation of the experience with regard to expectation of stress, and comparison of the experience with other women. (See Appendix C)

Major Variables under Consideration

Post-Partum Measures

1. *Evaluation of Labor and Delivery (ELD)*. The ELD is the average scale score across the five adjective scales of the semantic differential for the concept, "What My Labor and Delivery Was Like." Possible scores range from one to six with a low score indicating positive evaluation and a high score indicating negative evaluation.

2. *Experience of Delivery Relative to Expected Stress (ExS)*. The ExS is the score on a seven-step scale from "Much Better than I Expected" to "Much Worse than I Expected" with a midpoint step "Exactly What I Expected" in response to the item, "How Would You Rate Your Labor and Delivery?" A low score indicates a positive experience

relative to expectancy and a high score indicates a negative experience relative to expectancy.

3. Evaluation of Delivery Relative to Other Women (EO). The EO is the response on a seven-step scale from "Much Better than Other Women's" to "Much Worse than Other Women's" with a midpoint step "Exactly Like Other Women's" in response to the item, "Compared to What You've Heard from Other Women, How Would You Rate Your Labor and Delivery?" A low score indicates a positive evaluation relative to others and a high score indicates a more negative evaluation relative to others.

4. Hours in Labor and Delivery (H). This is the response to the question, "How Long Was Your Labor and Delivery?"

5. Behavior (Beh). The behavioral index is a total self-rating over five areas: crying, screaming or moaning; writhing and tossing; telling the staff about her discomfort or pain; requesting medication or anesthesia; extent of cooperation. Scores ranged from five (positive evaluation) to 25 (negative evaluation).

6. Post-Partum Anxiety (PPA). PPA is the score from zero to 28 on the Taylor Manifest Anxiety Scale with a low scale score indicating low manifest anxiety and a high scale score indicating high anxiety as measured following delivery.

7. Post-Partum Denial (PPD). The PPD is the score of self-criticism derived from the Tennessee Self-Concept Scale administered after delivery. Possible scores range from 10 to 50 with low scores indicative of high defensiveness (low self-criticism) and high scores indicating openness (high self-criticism).

Prenatal Measures

1. Anticipated Evaluation of Labor and Delivery (ALD). The ALD is the average scale score across the five adjective scales of the semantic differential for the concept, "What My Labor and Delivery Will Be Like." Possible scores range from one to six with a low score indicating positive evaluation and a high score indicating negative evaluation.

2. Mother as Information Source (MIS). The MIS is a dichotomous choice score indicating whether the S received or did not receive information concerning childbearing from her mother.

3. Mother's Evaluation of Delivery (MED). MED is the score on a six-step scale item ranging from "Very Easy" to "Very Difficult" in response to the question, "How Did Your Mother Describe Childbirth?" A low score indicates a positive (easy) evaluation and a high score indicates a negative (hard) evaluation.

4. Anticipated Hours (AH). AH is the number of hours indicated by Ss in response to the question, "How Many Hours Do You Think You'll Be in Labor and Delivery?"

5. Prenatal Anxiety (PNA). PNA is the score from zero to 28 on the Taylor Manifest Anxiety Scale with a low scale score indicating low manifest anxiety and a high scale score indicating high anxiety as measured in the ninth month of pregnancy.

6. Prenatal Denial (PND). The PND is the score of self-criticism derived from the Tennessee Self-Concept Scale administered prior to delivery. Possible scores range from 10 to 50 with low scores indicative of high defensiveness and high scores indicating openness.

Other Variables under Consideration

Background Variables

Age, educational level, size of family of orientation and birth order were obtained directly from questionnaire items. Social class was obtained for both the Family of Orientation (the S's class status prior to marriage) and the Family of Procreation (the S's present class status) by requesting the occupations of both the respondent's Father and Husband. Numerical ratings were assigned based upon the United States Census Bureau Rankings of Occupations which is a combined index of income and educational level for specified occupations [1963].

Family Planning and Feminine Role

Respondents were asked whether their pregnancy was planned, the size of family desired and the ideal spacing of children. Time between marriage and conception was calculated from date of marriage and expected date of confinement and coded from one to seven from "conceived prior to marriage" to "conceived over three years after marriage." Attitude toward menstruation was a combined index of response ranging from three to 13 (positive to negative) and included evaluation of pain or discomfort, restriction of activity and use of medication. Change in sexual desire during pregnancy is the response on a six-step descending scale from "much more desire since pregnant" to "no desire since pregnant."

Sick Role

Scores on the HIP Psychosomatic Inventory were obtained for extent of symptoms during pregnancy and prior to pregnancy. Respondents checked specific symptoms, indicating their frequency from "never occurring" to "rarely, sometimes or often" occurring. Only those items indicated as "often" occurring were scored.

Activity Level

The S's level of activity is the score received from the MMPI Hypomania scale ranging from zero (low activity level) to 46 (high activity level). This scale was administered both Before and After delivery.

Self-Concept

The TSCS was administered both Before and After delivery. Possible scores range from 90 (low self-esteem) to 450 (high self-esteem).

Procedure

Pre-Delivery Questionnaires were distributed in the obstetric setting by the physician or his nurse to those patients selected for the research. Subjects were asked if they wished to voluntarily participate in a study of women who were expecting first babies. The patients were instructed to complete the material at home and to return the questionnaire on their next prenatal visit. The schedules were distributed in manila envelopes with the S's name on it. A written introduction concerning the nature of the study and general instructions accompanied each questionnaire:

> I am interested in finding out some things about women who are about to have their first babies. I would like your help in getting some information about how women feel in their ninth month of pregnancy.
>
> Most of the questions in this questionnaire are simple choice ones in which you are to circle an answer or mark an X at the answer which you agree with most. There are no right or wrong answers.
>
> There are five sections to the questionnaire. On Part I you are asked for information about your background. On Part II you are asked to guess about how your labor and delivery will be. On Part III you are asked to check off the health problems you had before pregnancy and now during pregnancy. Parts IV and V consist of statements to be answered either True or False. Directions for answering are given before each section.
>
> All information is confidential. Only the investigator tabulating results will have access to the questionnaire. Results will be indicated statistically so that no individual questionnaire can be identified. I am giving this questionnaire to a large group of women expecting their first babies and I hope you will contribute your opinions and ideas.
>
> Please try to finish the questionnaire as soon as possible and return it at the time of your next visit to the doctor. It is essential for the study that the questionnaire be completed before your delivery if it is to be used.

At the end of the questionnaire, Ss were asked if they would be willing to answer a questionnaire of this type following delivery. It was not specified, however, that a Post-Delivery Schedule would be distributed. All Ss indicated favorably.

Post-Delivery Questionnaires were distributed in the hospital one to three days following delivery by the nursing staff or the ward receptionist Patients completed the questionnaire in the hospital. The written introductory statement was as follows:

> We are asking the women who participated in a study on women expecting their first babies to complete a second part of a questionnaire. We are again asking your assistance.

There are five sections on the questionnaire. The information we are interested in is, of course, your own experience in labor and delivery. Some parts of the questionnaire you are already familiar with. Please do not try to remember how you answered these questions before but how you are feeling at this time. All information is confidential. When you complete the questionnaire put it in the envelope and seal it. I will be picking the questionnaire up at various times from the nursing station. It is essential for the study that you complete the questionnaire while you are in the hospital.

CHAPTER III

RESULTS

Pearson Product Moment Correlations were computed and tested for significance in evaluating six of the seven major hypotheses. Analyses of variance and tests for the significance of differences between means were performed for group data pertinent to Hypothesis 5. Significance tests were also performed for differences between the means on the four psychological scales administered prenatally and post-partum.

Tests of Hypotheses under Study

Hypothesis 1 states that a woman's evaluation of her labor and delivery as favorable or unfavorable will be related to her level of expectation regarding the experience. In Table 1, the correlation between Evaluation of Labor and Delivery (ELD) and Expectation of Labor and Delivery (ExS) is 0.78 which is significant beyond the .001 level. Thus, the prediction of Hypothesis 1 is confirmed: women who rate their deliveries as favorable also tend to indicate that their experience was better than they expected, while women who indicate that childbirth was worse than expected, tend to rate their experience unfavorable.

TABLE 1

INTERCORRELATIONS AMONG MAJOR VARIABLES

		Post-Delivery Measures							Pre-Delivery Measures					
		ELD	ExS	EO	H	BEH	PPA	PPD	ALD	MIS	MED	AH	PNA	PND
Post-Delivery Measures	ELD	-	.78***	.74***	.35**	.42***	.02	-.01	.21	.52***	.15	-.16	.06	.08
	ExS		-	.73***	.41***	.40**	.07	.04	.02	.34**	-.14	-.16	.15	.04
	EO			-	.50***	.34**	-.15	-.15	.09	.20	-.09	-.01	-.10	-.10
	H				-	.13	-.20	-.01	.05	.04	-.10	.16	-.08	.08
	BEH					-	.19	.05	.17	-.04	.19	-.13	.34**	-.03
	PPA						-	.26*	.20	.02	-.10	.00	.79***	.13
	PPD							-	-.04	.05	.21	.17	.19	.79***
Pre-Delivery Measures	ALD								-	.01	.47***	.25*	.05	.07
	MIS									-	1.00[a]	-.25*	-.02	.15
	MED										-	.18	-.12	.20
	AH											-	-.11	.09
	PNA												-	.09
	PND													-

* $p < .05$, ** $p < .01$, *** $p < .001$.

[a] The correlation between MIS and MED is unity, since the 16 Ss indicating no information from mother were excluded thereby from the MED calculations.

It was predicted in Hypothesis 2 that anticipation of childbirth would be positively related to the woman's perception of her mother's experience in childbearing. In Table 1 the correlation between Anticipation of Labor and Delivery (ALD) and Mother's Evaluation of Labor and Delivery (MED) is .47 which is significant beyond the .001 level. The relationship between these variables is depicted in Figure 1. Hypothesis 2, therefore, is confirmed.

A woman's evaluation of labor and delivery as positive or negative was predicted, however, in Hypothesis 3 to be unrelated to her perception of her mother's experience in childbearing as positive or negative. The correlation obtained between MED and ELD as shown in Table 1 is .15 which is not significant. Moreover, the relationship between Anticipation of Labor and Delivery (ALD) and the woman's evaluation (ELD) is not significant. The lack of these relationships confirms this hypothesis that outcome is not determined simply by favorable or unfavorable anticipation or identification with mother's experience.

The complex interrelationships between evaluation of childbearing, the anticipation of the experience and the mother's description of the event are posited in Hypotheses 4 and 5. Hypothesis 4 postulated that women receiving information from their mothers would tend to evaluate their own deliveries more positively than women who indicated that mother did not communicate regarding childbirth. Of the 60 Ss, 16 reported that they had not received information from mother, while 44 indicated that mother had communicated to them about labor and delivery. The means and standard deviations for "Informed" and "Non-Informed"

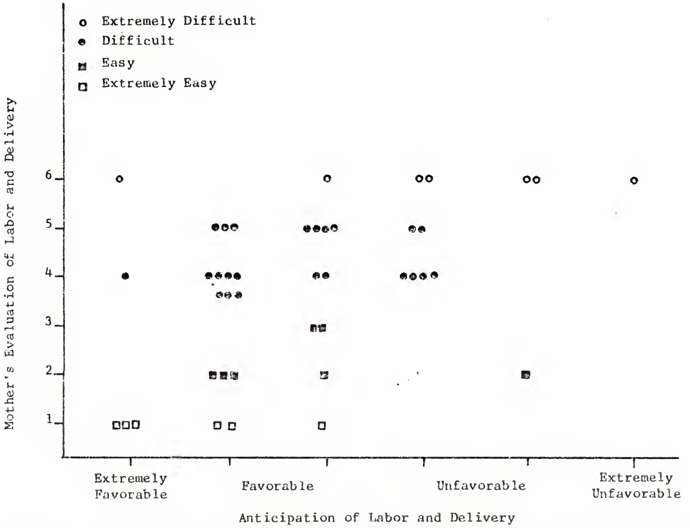

Figure 1. Scatterplot Showing Relationship between Anticipation of Labor and Delivery (ALD) and Mother's Evaluation of Labor and Delivery (MED) (N=44).

groups are shown in Table 2 with regard to the ELD and ExS variables. The point biserial correlation between Mother as Information Source (MIS) and Evaluation of Labor and Delivery (ELD) was found to be positive and significant ($r = .52$, $p < .001$). A positive and significant relationship was also found between MIS and the woman's evaluation of her labor and delivery relative to stress expectancy (ExS) ($r = .34$, $p < .01$). Thus, women who receive information from mother tend to evaluate their experience more positively than women who have not been informed about childbirth by their mothers. This confirms Hypothesis 4.

TABLE 2

MEANS AND STANDARD DEVIATIONS FOR INFORMED AND NON-INFORMED GROUPS ON EVALUATION (ELD) AND EXPECTATION (ExS) MEASURES

		ELD		ExS	
Group	N	Mean	SD	Mean	SD
Informed	44	3.20	2.33	4.25	1.93
Non-Informed	16	5.31	1.54	5.94	1.94

In Hypothesis 5 it was predicted that an extreme evaluation from mother, either negative or positive, would effect a more negative outcome than would a moderate evaluation. Three groups were differentiated for analysis: (1) Those reporting mother to have had a moderately easy or difficult experience in childbirth (Moderate Communication Group); (2) Those reporting mother to have had an extremely easy or difficult experience (Extreme Communication Group); and (3) Those indicating that mother had never discussed labor and delivery (No Communication Group). Two one-way analyses of variance and multiple comparisons between groups were performed to determine the relationship between type of communication and outcome. Table 3 presents the normative data for the three groups for two-outcome measure, Evaluation (ELD) and Evaluation Relative to Stress Expectancy (ExS).

TABLE 3

MEANS AND STANDARD DEVIATIONS FOR MODERATE, EXTREME AND NO COMMUNICATION GROUPS ON EVALUATION (ELD) AND EXPECTATION (ExS) MEASURES

Group	N	ELD		ExS	
		Mean	SD	Mean	SD
(1) Moderate Communication	19	2.42	.84	2.95	1.31
(2) Extreme Communication	25	4.00	1.50	5.52	1.58
(3) No Communication	16	5.31	1.54	5.94	1.94

It may be seen in Table 4 that an F of 20.55 was obtained for ELD and an F of 19.82 for ExS, values that are significant beyond the .001 level of probability.

Multiple comparisons between groups using the Newman-Keuls method [Winer, 1962] are presented in Table 5 and indicate significant differences between means on five of the six comparisons. Thus, the quality of the communication appears to effect different degrees of response with regard to whether a woman rates her labor and delivery as favorable or unfavorable and whether her experience was worse or better than she expected.

TABLE 4

SUMMARY OF THE ANALYSES OF VARIANCE OF EVALUATION AND EXPECTATION MEASURES AS A FUNCTION OF QUALITY OF COMMUNICATION

	Evaluation of Labor and Delivery (ELD)			
Source	SS	DF	MS	F
Between Groups	73.58	2	36.79	20.55*
Within Groups	102.07	57	1.79	
Total	175.65	59		
	Evaluation of Labor and Delivery Relative to Stress Expectation (ExS)			
Between Groups	98.86	2	49.43	19.82*
Within Groups	142.13	57	2.49	
Total	240.98	59		

* $p < .001$

TABLE 5

MULTIPLE COMPARISONS BETWEEN EXTREME, MODERATE AND NO COMMUNICATION GROUPS FOR EVALUATION (ELD) AND EXPECTATION (ExS) MEASURES

Comparisons	ELD	ExS
Moderate - No Communication	2.39*	2.99*
Moderate - Extreme Communication	1.58*	2.57*
Extreme - No Communication	1.31*	.42

* $p < .01$

The relationship between outcome and quality of communication is illustrated in Figure 2. Positive and Negative Outcome Groups were established on the basis of response on the ELD measure. Women who evaluated labor and delivery with degrees of favorableness were assigned to the Positive Outcome Group (N=27); while whomen who evaluated childbirth with degrees of unfavorableness were assigned to the Negative Outcome Group (N=33). It may be seen that there is a preponderance of Extreme and No Communications for the Negative Evaluation Group, while women who rated their deliveries positively tended to have received Moderate Communications from their mothers.

It was found that 44 women anticipated positive outcome, but only half of this group effected positive outcome; of the 16 women anticipating a negative outcome, 11 indicated an unfavorable experience. The four groups representing anticipation-and-outcome are depicted in Figure 3 with reference to the type of communication received from mother. It is interesting to note that for the group in which the prophecy of negative outcome is fulfilled (Negative Anticipation - Negative Evaluation) there is a predominance of extreme communication from mother. Of the 11 Ss in this group, eight or 73 percent reported extreme communication; there were no "moderate" Ss, and only three women or 27 percent of this group indicated that they had received no information from their mothers. Of the eight "extremes," seven were extremely negative communications. For the 22 Ss anticipating a positive outcome but experiencing a negative one (Positive Anticipation - Negative Evaluation), the modal category is

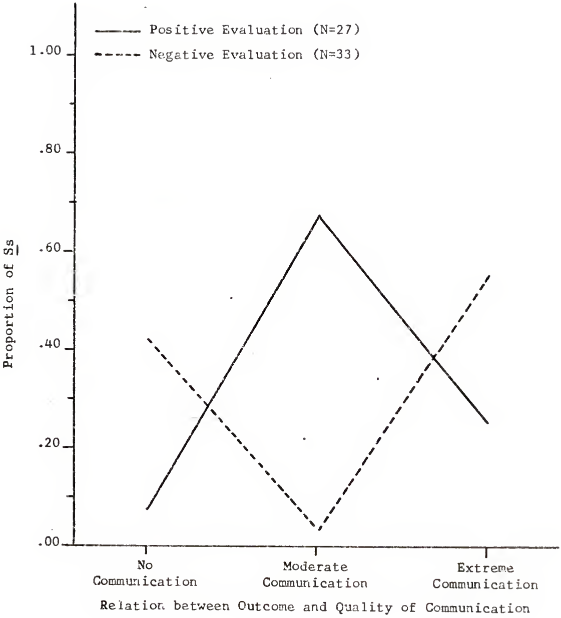

Figure 2. Relationship between Positive and Negative Outcome as a Function of Mother's Communication.

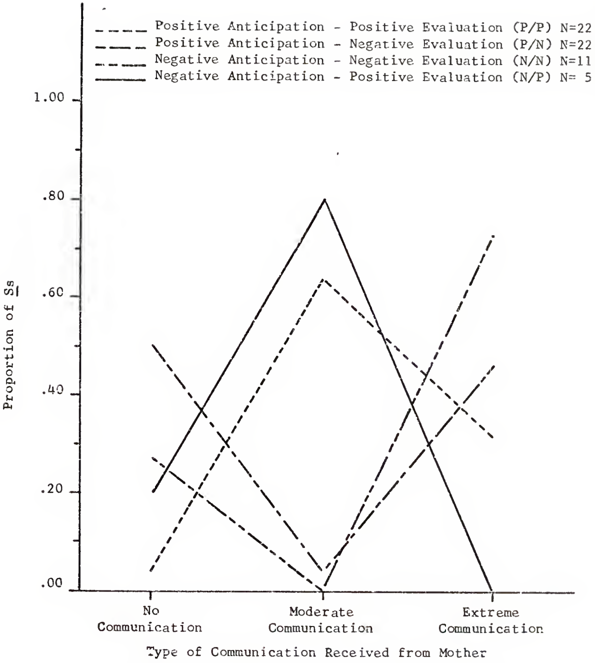

Figure 3. Relationship between Anticipation-Evaluation Groups and Mother's Communication.

"No Information," with 11 Ss or 50 percent responding in this manner. Of the ten "extreme" Ss in this group, five were extremely positive and five extremely negative communications. The one moderate communication is positive. Thus, for this group, one-half of the respondents received no information from mother; six received positive communications and five received negative comunications. For the positive outcome groups, the predominant mode of communication is moderate. In contrast with the Positive Anticipation - Negative Outcome Group, the Ss who anticipated and experienced a favorable outcome (Positive Anticipation - Positive Evaluation) in both their moderate and extreme communications had more negative evaluations from their mothers. Thus, of the 21 Ss reporting information received, 14 designated negative evaluations from their mothers (ten moderately negative and four extremely negative), while only six Ss recalled mother's experience as positive (four moderate; two extreme). For the group anticipating an unfavorable delivery, but experiencing a favorable one, there were no extreme communications and only one S indicated no information from her mother. The four remaining women all stated that mother had indicated a moderately negative experience.

Thus, for the positive outcome groups, the predominant communication appears to be a moderately negative one. For the negative outcome groups, the predominant forms of communication are either extremely positive, extremely negative or no information.

Figure 4 depicts the relationship between Type of Communication and Evaluation of Labor and Delivery Relative to Stress Expectancy (ExS).

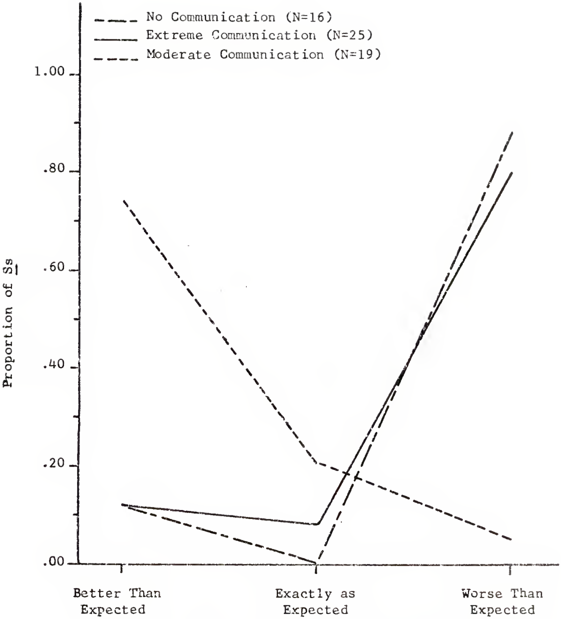

Figure 4. Relationship between Type of Communication and Evaluation of Labor and Delivery Relative to Stress Expectancy (ExS).

Again, it may be noted that in the moderate group, 14 or 74 percent of the 19 Ss indicated an experience that was better than they expected; four or 21 percent indicated an experience that was exactly as expected, and only one S responded that childbirth was worse than expectation. For the extreme group, however, three Ss or 12 percent of the group reported an experience that was better than expectation, two Ss or 8 percent indicated that labor and delivery was exactly as expected, while 20 Ss or 70 percent felt that labor and delivery was worse than they had expected. For women who had received no information from their mothers, two reported a better and 14 or 88 percent reported a worse experience than expectation. Of the total number of Ss (N=60), 35 or 58 percent stated that their deliveries were worse than expected. Of this total, 34 Ss had received extreme or no communication from mother. On the other hand, of the 19 Ss reporting an experience that was better than expectation, 14 had received moderate communications.

Hypothesis 6 predicted that women demonstrating high pre-stress anxiety will tend to perceive their childbearing experience more negatively than women demonstrating low anxiety. In Table 1, the correlation between Prenatal Anxiety (PNA) and Evaluation of Labor and Delivery (ELD) is .06 which is not significant. Similarly, in Hypothesis 7, it was predicted that women demonstrating high defensiveness will perceive childbirth more negatively than women demonstrating low defensiveness. The correlation between Prenatal Denial (PND) and ELD was not found to be significant ($r = .08$). Thus, the predictions of these hypotheses that anxiety and denial are related to a woman's evaluation of her childbirth experience were not confirmed. Except for the high correlations which are expected between the measures of anxiety and denial administered pre- and post-natally, the only significant relationship between these measures and post-delivery variables was the correlation between prenatal anxiety (PNA) and the woman's perception of her behavior during childbirth (BEH) with an $r = .34$, $p < .01$. Thus, highly anxious women appear to perceive themselves as less cooperative during labor and delivery than low anxious women. While perception of behavior (BEH) and ELD are themselves positively and significantly related ($r = .42$, $p < .001$), there was no relationship found between ELD and Prenatal Anxiety as indicated above.

Since Anxiety and Denial scores were obtained prior to and following delivery, the differences between the pre- and post-natally administered scores were determined. In Table 6 it may be seen that there was a significant decrease in anxiety following delivery (t,df 59 = 3.41, $p < .01$). While there was a slight decrease in the measure of defensiveness following childbirth, this decrease was not found to be significant (t, df 59 = 1.10, $p > .05$).

TABLE 6

MEAN DIFFERENCES FOR ANXIETY AND DENIAL ADMINISTERED PRE- AND POST-NATALLY

	N	Mean	SD	t
Anxiety				
Prenatal	60	9.08	5.43	3.41*
Post-Natal	60	7.65	4.08	
Denial				
Prenatal	60	34.21	5.76	1.10
Post-Natal	60	33.19	6.27	

*$p < .01$

Other Relationships between Major Variables

It has already been indicated that a positive and significant relationship was found between the rating of labor and delivery as favorable or unfavorable and the rating of labor and delivery as better or worse than expected (Hypothesis 1). In Table 1 it may be seen that of the ten intercorrelations between Outcome Measures (ELD, ExS, EO, H, and BEH) all but one are both positive and significant. Hence, if a woman perceives her labor and delivery as favorable, she also indicates her experience is better than expected and better than the experience of other women; in addition, she sees herself behaving favorably under stress and indicates a relatively short labor. Conversely, a woman who evaluates labor and delivery unfavorably, also tends to indicate a longer labor, to see herself as more uncooperative and to perceive her experience to be worse than expected and worse than other women's. The correlation between length of labor (H) and behavior (BEH) was positive but not significant ($r = .19$, $p > .05$). Thus, the way a woman perceives her performance in labor and delivery does not appear to be a function of the length of her labor and delivery.

A woman's anticipation of the length of labor (AH) with actual time in labor and delivery (H) was found to be positive but not significant ($r = .16$, $p > .05$). The length of time anticipated (AH) was, however, positively and significantly correlated with anticipation of the experience (ALD) ($r = .25$, $p < .05$). Thus, women who expect a favorable childbirth estimate a shorter labor than women anticipating an unfavorable labor and delivery. Neither measure is, however, predictive of her actual experience measured evaluatively or in terms of hours in labor and delivery.

It was further found that the estimation of time in labor (AH) was negatively related to MIS with an r of -.25 which is significant at the .05 level. Thus, there is a tendency for women who received no information from their mothers to anticipate fewer hours anticipated in labor and delivery than women who receive information from mother. It may be recalled that a significant relationship was found between the evaluation of the experience (ELD) and mother as information source, i.e., women tend to indicate unfavorable response to childbearing when they report that mother never discussed her experience. At the same time, they tend to underestimate the actual length of the experience.

In order to analyze the relationships between length of labor and anticipation of length of labor with the type of childbirth communication received, a one-way analysis of variance of each of the first two measures was performed with quality of communication as the incept variable. In Table 7, the normative data are presented, and, in Table 8, the summary of the analysis of variance for anticipated length of labor and actual length of labor may be seen. While there is a tendency for the Moderate Communication Group to overestimate their time and for the No Communication and Extreme Communication Groups to underestimate their length of labor, the F ratios obtained were not found to be significant. It may be noted in Table 7 that the standard deviations for Experienced Hours are quite large, indicating a wide range of response.

TABLE 7

MEANS AND STANDARD DEVIATIONS FOR MODERATE, EXTREME AND NO COMMUNICATION GROUPS ON ANTICIPATED (AH) AND EXPERIENCED (H) LENGTH OF LABORS

	Anticipated Hours			Experienced Hours		
Group	N	Mean	SD	N	Mean	SD
Moderate	18	10.44	3.97	19	9.63	4.91
Extreme	24	8.79	3.89	25	13.08	9.64
No	16	7.56	2.61	16	12.31	9.64

TABLE 8

SUMMARY OF THE ANALYSES OF VARIANCE OF ANTICIPATED AND EXPERIENCED LENGTH OF LABORS AS A FUNCTION OF QUALITY OF COMMUNICATION

Source	SS	DF	MS	F
Anticipated Hours				
Between Groups	71.59	2	33.80	2.74
Within Groups	718.34	55	13.06	
Total	789.93	57		
Experienced Hours				
Between Groups	134.49	2	67.24	0.94
Within Groups	4059.70	57	71.22	
Total	4194.18	59		

$p > .05 = 3.17$

Findings Related to Other Variables

Pre-Delivery Predictors of Outcome

Table 9 presents the correlations between Outcome of Labor and Delivery and 16 pre-delivery variables. It may be noted that only five pre-delivery measures were found to be significantly related to the various criterion measures. Social Class of Procreation (SCP) was found to be inversely related to Evaluation of Labor (ELD) with an $r = -.25$, $p < .05$; and with the woman's perception of her behavior (BEH) ($r = -.40$, $p < .01$). Social Class of Orientation was also negatively related with ELD but the obtained correlation did not reach significance ($r = .19$, $p > .05$). Thus, the higher the socioeconomic status, the more favorable is the subjective outcome. Order of Birth (BO) was positively related with ELD ($r = .32$, $p < .05$), ExS ($r = .28$, $p < .05$), EO ($r = .26$, $p < .05$) and BEH ($r = .33$, $p < .05$). Not unexpectedly, Size of Family of Orientation was likewise found to be significantly correlated with ELD ($r = .32$, $p < .05$), BEH ($r = .30$, $p < .05$), and barely misses significance with EO ($r = .24$). Thus, it appears that if a woman grows up in a large family and is a younger sib, she tends to evaluate her childbearing experience negatively, to rate her experience as worse than expected, and worse than other women's, and to perceive herself as behaving unfavorably in labor and delivery.

Change in Sexual Desire during Pregnancy was found to be positively related with ELD ($r = .28$, $p < .05$), ExS ($r = .31$, $p < .05$) and with EO ($r = .35$, $p < .01$). Thus, it appears that women indicating more sexual

TABLE 9

CORRELATIONS BETWEEN PREDICTOR AND CRITERION VARIABLES

Predictor Variables	Criterion Variables				
	Evaluation of Labor and Delivery (ELD)	Evaluation Relative to Expectation (ExS)	Evaluation Relative to Other Women (EO)	Hours in Labor and Delivery (H)	Behavior (BEH)
Background					
Age	-.13	-.02	-.10	.12	-.13
Education	-.12	-.05	-.10	.09	-.10
Social Class of Orientation	-.18	-.09	-.03	-.04	-.25*
Social Class of Procreation	-.25*	-.16	-.16	.02	-.40**
Size of Family of Orientation	.32*	.19	.24	.06	.30*
Birth Order	.32*	.28*	.26*	.16	.33**
Family Attitudes					
Planned/Unplanned Pregnancy	-.01	-.09	.02	-.13	.19
Size of Family Desired	-.20	-.13	-.11	-.04	-.11
Ideal Spacing	-.09	.06	.01	-.02	.05
Time between Marriage and Conception	-.02	.12	-.01	.14	-.16
Feminine Role					
Menstruation	.11	.08	.13	.01	.16
Change in Sexual Desire	.28*	.31*	.35**	.09	.07
Sick Role					
Symptoms before Pregnancy	.02	.13	.00	-.03	.10
Symptoms while Pregnant	.04	.05	-.14	-.09	.18
Activity Level (Hypomania)	.09	.11	.00	.06	.22
Self-Concept	-.22	-.20	.01	.11	-.11

* $p < .05$, ** $p < .01$.

desire during pregnancy evaluate their childbearing experience more favorably than women indicating less desire during pregnancy.

It may be noted that no measures were related with Hours in Labor. Activity Level (MMPI Hypomania Scale) was found to be positively related with Behavior, but the obtained correlation did not achieve a significant level ($r = .22$, $p > .05$). Similarly, a negative but nonsignificant relationship was found between self-concept and ELD ($r = -.22$, $p > .05$) and EO ($r = -.20$, $p > .05$).

Intercorrelations among Pre-Delivery Variables

Table 10 presents the intercorrelations among pre-delivery variables.

Background factors were found to be highly interrelated. Age, educational level and social class were all positively and significantly related with one another (r age-education = .64, $p < .001$; r age-social class of procreation = .44, $p < .001$); r education-social class of procreation = .49, $p < .001$); r age-social class of orientation = .40, $p < .01$; r education-social class of orientation = .57, $p < .001$; r social class of orientation-social class of procreation = .74, $p < .001$). Size of family of orientation was inversely related to educational level ($r = -.28$), $p < .05$); and the correlation between birth order and social class of procreation was negative and significant at the .05 level ($r = 0.25$, $p < .05$). The relationship between size of family of orientation and birth order is self-evident ($r = .55$, $p < .001$).

TABLE 10

INTERCORRELATIONS AMONG PREDICTOR VARIABLES

		Background					
		Age	ED	SCO	SCP	SFO	BO
Background							
Age		--	.64***	.40**	.44***	-.18	.00
Education	(ED)		--	.57***	.49***	-.28*	-.12
Social Class-Orientation	(SCO)			--	.74***	-.10	-.19
Social Class-Procreation	(SCP)				--	-.17	-.25*
Size of Family of Orientation	(SFO)					--	.55***
Birth Order	(BO)						--
Family Planning							
Planned/Unplanned Pregnancy	(P/U)						
Size of Family Desired	(SFD)						
Ideal Spacing	(SP)						
Time between Marriage and Conception	(TMC)						
Feminine Role							
Menstruation	(MEN)						
Change in Sexual Desire	(SD)						
Sick Role							
Symptoms before Pregnancy	(SBP)						
Symptoms during Pregnancy	(SDP)						
Anticipation							
Anticipation of Labor and Delivery	(ALD)						
Mother as Information Source	(MIS)						
Mother's Evaluation of Labor and Delivery	(MED)						
Anticipated Hours	(AH)						
Prenatal Scales							
Anxiety	(PNA)						
Denial	(PND)						
Hypomania	(PNH)						
Self-Concept	(PNSC)						

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*p $< .05$, **p $< .01$, ***p $< .001$.

TABLE 10 (Continued)

	Family Planning				Fem. Role		Sick Role	
	P/U	SFD	SP	TMC	MEN	SD	SBP	SDP
Background								
Age	-.50***	.01	-.31*	.02	-.10	-.24	.00	-.22
(ED)	-.26*	.13	-.37**	.36**	-.19	-.10	-.10	-.27*
(SCO)	-.21	.30*	-.38**	.28*	.09	.03	-.17	-.37**
(SCP)	-.26*	.37**	-.35**	.39**	-.08	.07	.01	-.14
(SFO)	.12	.01	.18	-.15	-.07	.02	-.04	-.04
(BO)	.14	-.25	.08	-.19	-.02	-.03	.03	-.02
Family Planning								
(P/U)	--	.00	.30*	-.71***	.00	.01	.01	.27*
(SFD)		--	-.28*	.00	-.09	.17	-.20	.02
(SP)			--	-.24	.08	.11	-.16	.10
(TMC)				--	-.07	-.03	.11	-.14
Feminine Role								
(MEN)					--	-.04	.06	.14
(SD)						--	.01	.07
Sick Role								
(SBP)							--	.49**
(SDP)								--
Anticipation								
(ALD)								
(MIS)								
(MED)								
(AH)								
Prenatal Scales								
(PNA)								
(PND)								
(PNH)								
(PNSC)								

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*$p < .05$, **$p < .01$, ***$p < .001$.

TABLE 10 (Continued)

	Anticipation				Prenatal Scales			
	ALD	MIS	MED	AH	PNA	PND	PNH	PNSC
Background								
Age	-.07	-.04	.11	.11	-.21	-.14	-.06	.17
(ED)	-.14	.01	.09	-.08	-.15	.03	.10	.13
(SCO)	-.19	.06	-.05	.08	-.16	.05	-.10	.12
(SCP)	-.19	.03	-.16	.18	-.17	.19	-.09	.09
(SFO)	-.11	.18	-.04	-.19	.01	-.01	-.15	-.08
(BO)	-.11	.06	-.05	-.22	.07	-.14	.13	.06
Family Planning								
(P/U)	.02	-.11	-.03	-.11	.19	.03	.23	-.23
(SFD)	-.09	.12	- 23	-.10	-.05	.04	-.12	.08
(SP)	.10	.06	.08	.06	.04	.16	-.12	-.18
(TMC)	-.07	.00	.14	.18	-.24	-.11	-.24	.18
Feminine Role								
(MEN)	.24	-.04	-.10	.13	.11	.02	.05	-.21
(SD)	.23	.07	.05	.05	.17	.14	.22	-.18
Sick Role								
(SBP)	.01	-.15	-.22	-.11	.41***	.03	.27*	-.23
(SDP)	.21	-.08	.08	.16	.52***	.25*	.35**	-.44***
Anticipation								
(ALD)	--	.01	.47**	.25*	.05	.07	.04	-.15
(MIS)		--	1.00[a]	-.25*	-.02	.15	-.11	-.16
(MED)			--	.18	-.12	.20	-.04	-.08
(AH)				--	-.11	.09	-.05	.09
Prenatal Scales								
(PNA)					--	.09	.53***	-.57***
(PND)						--	.02	-.18
(PNH)							--	-.23
(PNSC)								--

*p < .05, **p < .01, ***p < .001.

[a] The correlation between MIS and MED is unity, since the 16 Ss who indicated no information from mother were excluded thereby from the MED calculations.

Whether a pregnancy was planned or unplanned was found to be significantly related to length of marriage prior to conception ($r = -.71$, $p < .001$). Thus, the longer a woman is married, the greater the probability that her pregnancy is planned. Women who did not plan their pregnancies indicate a greater length of time desired between children ($r = .30$, $p < .05$). The larger the family desired, the closer together is the desired spacing of the children ($r = -.28$, $p < .05$). Family planning variables were also found to be related with background factors. Thus, the size of family desired was positively and significantly related to social class measures (for size of family desired-social class of orientation $r = .30$, $p < .05$; for size of family desired-social class of procreation $r = .37$, $p < .01$); while spacing was negatively and significantly correlated with class (for spacing-social class of orientation $r = -.38$, $p < .01$; for spacing-social class of procreation $r = -.35$, $p < .01$). Size of family desired was negatively related to birth order ($r = -.25$, $p < .05$) but demonstrated no relationship with size of family of orientation. Age and educational level were significantly related to planned or unplanned pregnancies: the older the woman and the higher her educational level, the greater the probability that conception was planned (for age-planning $r = -.50$, $p < .001$; for education-planning $r = -.26$, $p < .05$).

There were no significant correlations between the two measures of feminine role themselves or other pre-delivery measures. Positive relationships were obtained for anticipation of labor and delivery with menstruation ($r = .24$) and change in sexual desire during pregnancy

($r = .23$) but these correlations failed to achieve significance at the .05 level. There was also a trend for younger women to indicate less desire during pregnancy ($r = -.22$, $p < .05$).

Social class of orientation was found to be negatively and significantly related to reports of symptoms during pregnancy ($r = .-37$, $p < .01$). Women attaining a higher level of education reported fewer symptoms occurring during pregnancy ($r = -.27$, $p < .05$); and women whose pregnancies were unplanned tended to report more symptoms during pregnancy than women whose pregnancies were planned ($r = .27$, $p < .05$). While symptoms prior to and during pregnancy were highly correlated ($r = .49$, $p < .001$), none of the pre-delivery measures discussed was significant for pre-pregnancy symptom report.

The four psychological tests administered prenatally showed greatest relationships with sick role variables. As noted in Table 10, all the tests were significantly correlated with symptom report during pregnancy. Symptoms during pregnancy correlated .52 with anxiety ($p < .001$); .25 ($p < .05$) with denial; .35 ($p < .01$) with hypomania; and -.44 with self-concept ($p < .01$). Those women who reported a greater number of symptoms during pregnancy tended to be more anxious, more self-critical (or less defensive), manifested a greater activity level and had less self-esteem than women who were more free of symptoms during their pregnancies. For symptom report prior to pregnancy, only the correlatins with anxiety ($r = .41$, $p < .001$) and hypomania ($r = .27$, $p < .05$) achieved significance. A negative relationship was obtained with the self-concept measure but correlation obtained did not reach significance ($r = -.23$, $p > .05$). There was no relationship between denial and symptom report prior to pregnancy.

In Table 11, the intercorrelations among the tests are reproduced from Table 10 for clearer presentation. Included in this table are the correlations obtained from the post-partum administration of the tests. It may be seen that pre- and post-measures for each scale are positively and significantly related beyond the .001 level of significance (for anxiety $r = .79$; for denial $r = .79$; for hypomania $r = .73$; for self-concept $r = .73$). Anxiety and hypomania were found to be significantly related for both pre- and post-measures. Thus the correlation between prenatal anxiety and prenatal hypomaina is .53 ($p < .001$); the post-natal correlation between these two scales is .42 ($p < .01$); the correlation between prenatal anxiety and post-natal hypomania is .44 ($p < .001$); and the relationship between anxiety measured post-natally with prenatal hypomania is .40 ($p < .01$). Likewise, anxiety and self-concept were found to be negatively and significantly related across time (for prenatal anxiety-prenatal self-concept $r = -.57$, $p < .001$; for post-natal anxiety-post-natal self-concept $r = -.38$, $p < .01$; for prenatal anxiety-post-natal self-concept $r = -.45$, $p < .001$; for post-natal anxiety-prenatal self-concept $r = -.27$, $p < .05$). Anxiety and denial measures were only found to be significant for post-natal administration ($r = .26$, $p < .05$).

It has already been noted (see Table 6) that pre- and post-natal means for anxiety were found to differ significantly, indicating a decrease in anxiety following childbirth. No significant

TABLE 11

INTERCORRELATIONS AMONG PRENATAL AND POST-PARTUM MEASURES OF ANXIETY, DENIAL, HYPOMANIA AND SELF-CONCEPT

	Prenatal				Post-Partum			
	Anxiety (PNA)	Denial (PND)	Hypo-mania (PNH)	Self-Concept (PNSC)	Anxiety (PNA)	Denial (PND)	Hypo-mania (PNH)	Self-Concept (PNSC)
Anxiety (PNA)	--	.09	.53***	-.57***	.79***	.13	.44***	-.45**
Denial (PND)		--	.02	-.18	.19	.79***	.02	-.18
Hypomania (PNH)			--	-.23	.40**	-.10	.73***	-.23
Self-Concept (PNSC)				--	-.27*	-.19	-.23	.73**
Anxiety (PNA)					--	.26*	.42**	-.38**
Denial (PND)						--	.13	-.16
Hypomania (PNH)							--	-.08
Self-Concept (PNSC)								--

difference was obtained, however, for pre- and post-natal denial means. In Table 12, tests of significance are summarized for the pre- and post-delivery means on hypomania and self-concept. It may be seen that t scores obtained were not significant. Thus, of the four psychological scales, only anxiety was found to differ on pre- and post-administration.

TABLE 12

MEAN DIFFERENCES FOR HYPOMANIA AND SELF-CONCEPT ADMINISTERED PRENATALLY AND POST-PARTUM

	N	Mean	SD	t
Hypomania				
Prenatal	60	17.32	4.24	.08
Post-Partum	60	17.24	4.42	
Self-Concept				
Prenatal	60	360.18	26.91	.42
Post-Partum	60	356.24	29.01	

It has been noted that the four psychological scales administered prenatally were not predictive of outcome in labor and delivery (Tables 1 and 9), and, further, that the majority of correlations between the prenatally administered scales and pre-delivery variables were negligible (Table 10). In Table 13, the correlations between the scales administered post-natally and pre-delivery variables are presented. It can be seen that the relationships were for the most part negligible. While the relationships between sick role and the other scales were maintained, the magnitudes of the correlations were considerably less than those obtained with prenatal scale measures.

TABLE 13

CORRELATIONS BETWEEN POST-PARTUM MEASURES OF ANXIETY,
DENIAL, HYPOMANIA AND SELF-CONCEPT
WITH PRE-DELIVERY VARIABLES

	Post-Partum			
	Anxiety	Denial	Hypo-mania	Self-Concept
Age	-.12	.07	-.13	.08
Education	-.06	.06	.09	.00
Social Class-Orientation	-.02	-.01	-.05	-.03
Social Class-Procreation	-.06	.18	-.04	.02
Size of Family-Orientation	-.08	-.19	-.14	.06
Birth Order	.00	-.18	.13	.28*
Planned/Unplanned Pregnancy	.02	-.16	.24	-.12
Size of Family Desired	.00	.18	-.03	-.03
Ideal Spacing	-.01	.02	-.18	-.08
Time between Marriage & Conception	-.10	.10	-.29*	.05
Menstruation	.20	.14	.05	-.33**
Change in Sexual Desire	.21	.01	.07	-.14
Symptoms before Pregnancy	.38**	.12	.30*	-.16
Symptoms during Pregnancy	.32*	.29*	.33*	-.23

$^{*}p < .05$, $^{**}p < .01$.

Birth order was found, however, to be significantly related to postnatal self-concept ($r = .28$, $p < .05$), whereas no relationship was indicated to the earlier measure of self-concept ($r = .06$, Table 10). A negative relationship was obtained between post-partum self-concept and attitude toward menstruation ($r = -.33$, $p < .01$), which trend may be discerned in the correlation between prenatal self-concept and menstruation ($r = .21$, $p > .05$, Table 10). Time between marriage and conception was found to be negatively related to post-partum hypomania ($r = -.29$, $p < .05$). The correlation between time and prenatal hypomania was of approximate magnitude but did not achieve significance ($r = -.24$, $p > .05$, Table 10).

CHAPTER IV

DISCUSSION

Conclusions may be drawn from the data obtained in this study in three areas: (1) The importance of expectation in crisis resolution; (2) The relationship between pre-stress communication and crisis outcome; and (3) The role of identification with mother in childbearing.

When women are asked to evaluate the favorableness of their labor and delivery on a semantic differential scale and also to indicate whether the experience was better or worse than expected, there is a high probability that the two descriptions--evaluation and evaluation relative to expectation--will be in the same direction. The prediction that evaluation of childbearing is related to expectations concerning the childbearing experience was confirmed: women indicating that labor and delivery were favorable also indicate that childbirth was better than expectation; conversely, women evaluating labor and delivery as unfavorable tend to indicate that the experience was worse than they had anticipated (Hypothesis 1). In an earlier study [Levy, 1966] where women expecting a second child retrospectively described their first childbearing experience the same relationship between absolute and relative evaluations was obtained. When these multigravidae anticipated the second labor and delivery as "harder or easier" to face because of having had the experience previously, this response correlated higher with the evaluation of first delivery relative to stress expectation than it did with evaluation of first delivery as favorable or unfavorable. There is some indication, then, that the rating of "Better or Worse than Expectation" may be a more potent evaluative measure than the absolute rating of favorable or unfavorable.

If expectation is a salient factor in a woman's evaluation of her experience, it becomes necessary for predictive purposes to obtain a measure of that expectancy prior to stress impact. In this study, primigravidae were asked to rate their impending labor and delivery, and the majority predicted a favorable outcome. Thus, 73 percent of the women anticipated a favorable experience, but after the delivery less than one-half of the sample rated their actual experience positively. There was no correlation, then, between ratings of anticipation and actual delivery when measured on the same semantic differential scales administered pre- and post-natally.

The role of expectation in outcome is clarified when other relationships are considered. Hypothesis 2 predicted that anticipation of childbearing is positively related to the woman's perception of her mother's experience in childbearing; it was confirmed. Thus, women who recall their mother as describing childbearing as favorable will tend to anticipate a favorable experience; conversely, if mother's experience is recalled as unfavorable, the anticipation of childbirth will tend to be unfavorable.

The confirmation of Hypothesis 2 indicates that identification with mother's experience in childbearing is an important aspect in a primigravida's anticipation of labor and delivery. This substantiates Klein, Potter and Dyk's [1950] finding that "family patterns influenced the woman's expectations of childbearing . . ." [p. 70]. But identification with mother does not determine the woman's evaluation of the actual childbirth experience. Hypothesis 3 predicted that evaluation of labor and delivery would not reflect the woman's perception of her mother's experience as favorable or unfavorable and it, too, was confirmed. Thus, mother's evaluation as positive or negative was predictive of the woman's anticipation of her experience but not of her perception of the actual labor and delivery.

Janis postulates in his theory of stress that inability to realistically anticipate the dangers of impending stress is a pathogenic condition which leads to negative outcome following stress impact. It was hypothesized, then, that women who received no information from their mothers concerning the mother's experience in childbearing would be unprepared and effect a poorer outcome in labor and delivery than women receiving information (Hypothesis 4); and, further, that women who received extreme evaluations from their mothers, whether extremely negative or extremely positive, would effect a poorer outcome than women who received moderately negative or positive evaluations from mother (Hypothesis 5). Both hypotheses were confirmed.

The importance of the intensity of mother's communication was demonstrated when Ss were assigned to one of the four groups reflecting the possible combinations of anticipation and outcome (e.g., favorable anticipation-favorable outcome). Of the *Ss* who anticipated a positive outcome, only one-half reported their actual childbearing experience as favorable, while the other half reported their experience as unfavorable. For the favorable anticipation-favorable outcome group, the predominant communication from mother was a *moderately negative* one. For the favorable anticipation-unfavorable outcome group, the predominant communications were "No Information" or *extremely positive* ones. Of the *Ss* who anticipated a negative experience in childbearing, the majority evaluated childbirth unfavorably. Mothers' communications for this group were predominantly *extremely negative* communications. For the unfavorable anticipation-favorable outcome group, the modal communication from mother was *moderately negative.* Thus, women who favorably evaluate outcome in childbirth appear to have received a moderately negative communication from their mothers; for women evaluating outcome unfavorably, extremely positive, extremely negative or no information from their mothers are the predominant communications. These relationships are summarized below.

		Modal Communication from Mother	
Anticipation	Outcome	Direction	Intensity
1. Favorable	Favorable	Negative	Moderate
2. Favorable	Unfavorable	a. Positive b. No communication from mother	Extreme
3. Unfavorable	Unfavorable	Negative	Extreme
4. Unfavorable	Favorable	Negative	Moderate

The dimensions of direction and intensity in the communication may help to clarify Ritson's conclusions regarding a woman's identification with her mother in childbearing. It may be recalled that Ritson employed a physiological criterion of labor and delivery (hours in labor) in a retrospective design. For the group of women having had normal length labors, Ritson found that 15 Ss indicated their mothers had had difficult labors and only six recalled mother having had an easy time. In the prolonged labor group, 11 Ss recollected mother's experience as easy, while 10 indicated mother as having had difficult deliveries. Ritson concluded that the mother's childbearing experience was not significant in predicting the daughter's performance in labor. While the clinical criterion is not comparable to the subjective criteria employed in the present study, it is interesting to note that over two-thirds of Ritson's normal group received negative communications from their mothers, while over half the prolonged group received positive communications. What Ritson ignores is that the intensity of the communication is equally as important as its directionality as a predictor.

These findings help to clarify the relationship between negative and positive anticipation, identification with mother and the kind of pre-stress communication likely to affect outcome in childbearing. A moderately negative communication from mother transmits to the woman realistic information concerning childbirth, permitting rehearsal of negative aspects of the expected experience. This kind of communication allows the individual to indulge in "the work of worry" hypothesized by Janis to be necessary for successful outcome in a crisis.

Where mother has either not communicated or has communicated extremely positive evaluations of her labor and delivery, the negative aspects of the impending experience remain unspoken. This is what Kubie refers to as the "hidden terror" lurking behind a mask of optimism. It is these women who anticipate a favorable experience, and, in Janis' terms, feel "victimized" by the actual labor and delivery. These are the individuals whom Janis designates as "deniers." In cases where mother communicates extremely negative data regarding labor and delivery, the woman is again psychologically unable to anticipate her experience realistically. In the latter instance, the contemplation of the actual delivery is so emotionally shattering that realistic rehearsal of the impending events is impeded. These are the highly anxious people, according to Janis. Therefore, merely asking a woman to rate her anticipated labor and delivery is not adequate for eliciting her real expectation, since the response may instead reflect her avoidant or denial defenses. This is particularly true for those women who received "no information" or "positive" communications. Thus, it is to be expected that the anticipation measure was not related to the woman's actual experience.

It was predicted that anxiety and denial would be related to outcome, that is, that persons demonstrating high anxiety and high defensiveness would effect poor outcomes (Hypotheses 6 and 7). These hypotheses were not confirmed. Anxiety, as measured by the Taylor Manifest Anxiety Scale, and Denial, as measured by the Self-Criticism Scale of the Tennessee Self-Concept Scale, failed to demonstrate that these variables were related to subjective outcome. It is possible that anxiety and denial are relevant to the specific situation, in this case childbearing, rather than as more general or characterological facets as measured by these instruments. It may be more relevant, then, to construct tests of anxiety and denial specific to labor and delivery. Janis' investigations differentiated high and low anxious patients with regard to the specific instance of the impending surgery and Kartchner [1950] noted that the greater the fear of childbirth, the more unfavorable were both the subjective and behavioral outcomes of labor and delivery. Had more appropriate instruments been used in the present study, the predicted relationships of anxiety and denial might have been obtained.

Other Variables under Study

Psychological Instruments

The psychological instruments--the Taylor Manifest Anxiety Scale, the Self-Criticism Scale of the Tennessee Self-Concept Scale, the Hypomania Scale of the MMPI and The Tennessee Self-Concept Scale--were not found to be significantly related to subjective outcome measures. Possible trends were present in the positive relationship found between hypomania and a parturient's perception of her behavior and in the negative relationship between self-concept and the way a woman evaluates her labor and delivery. Kann [1950] found hypomania related to observed behavioral ratings. The trend obtained here is suggestive of further research. It may well be that subscales on the Self-Concept Scale which were not analyzed would be more productive.

While these instruments were not predictive of outcome, they did show relationship with symptom report. Thus, it was found that women indicating a greater number of symptoms during pregnancy also tended to be more anxious, more self-critical, demonstrated a higher activity level and had less self-esteem than women who reported a fewer number of symptoms during their pregnancy. As Davids and his associates [1961] found, anxiety decreased significantly following delivery.

Sympton Report

Although psychological measures were related to symptom report, they were not found to be related to background variables; however, symptom report during pregnancy was found to be negatively correlated with both education and social class of orientation. Thus, women from a lower socioeconomic background who have had fewer years of schooling tend to report a greater number of symptoms during pregnancy. In addition, women whose pregnancies are not planned tend to indicate more symptoms during the pregnancy than women whose pregnancies are planned. The intercorrelations among many of the background and family planning variables found in the present study make these results difficult to interpret. It would appear that symptom report during pregnancy is a class related phenomenon--whether this is "stylistic" or "real," that is, that lower class women actually have more symptoms, is not discernible from the data. It does, however, indicate that response to pregnancy has an important socially oriented basis. Unlike Rosengren [1961] and Grimm and Venet [1966], who found symptom report related to behavioral and physiological outcomes of labor and delivery, no relationship was found between symptom report and subjective outcome in the present study.

Social Class

Of the 16 pre-delivery variables, four--social class of procreation, size of family of orientation, birth order and change in sexual desire--were found to relate significantly to two or more outcome measures. It was found that the higher the socioeconomic class of procreation, the more favorable was the outcome. Interestingly, while social class measures (orientation and procreation) were themselves highly correlated, there were differences in their relationships with other variables that support Illsley's contention that these two designates of socioeconomic status be employed in childbirth investigations. In general, the directions of the obtained correlations of these measures were the same, but in some instances the magnitudes of the associations were different. For example, as indicated above, the social class into which a woman was born was significantly related to symptom report during pregnancy; yet the woman's marital social class (procreation) was predictive of her evaluation of labor and delivery. Almost all subjects reflected upward social mobility.

Family Size

Women from large families and those who are younger sibs tended to experience childbearing negatively. Again, since these variables are highly related to social class, it is difficult to specify their influence. While birth order may be important in terms of outcome, the correlation in the present study may be inflated as a reflection of the size of the family of orientation. The aspect of male and female sibs was not investigated nor the relationship between birth order, size of family of orientation and direct early experience with a childbearing mother. It is interesting to note that there was no relationship between size of family of orientation and size of family desired, but that a significantly negative correlation was obtained between birth order and number of children desired. It appears that it is not the number of siblings one encounters, but the position in the family that relates to the desire for children, that is, later born sibs indicate a desire for fewer children than earlier born sibs. There is also the possibility that earlier born children are more upwardly mobile, in which case birth order would reflect the current social class style in number of children per family. The data are somewhat disparate with Brown's [1964] finding that women from larger families had shorter labors. The possibility of birth order influences has been indicated. In addition, the comparison between the criterion "hours in labor" with subjective evaluation must be considered.

Length of Labor

"Length of labor" has a wide current usage in obstetrical research because of its assumed objectivity and ease of statistical manipulation. As employed in the present study, "length of labor" must be considered as a subjective response. Subjects were requested only to indicate the time involved in their labor and delivery--the limits were therefore subjectively rather than clinically determined. There has been no research on the relationship between the length of labor designated by a parturient and her physician. While there was a significant correlation between the woman's statement of her length of labor and her evaluation of childbearing as positive or negative and better or worse than expectation, only approximately 12 percent of the variance would be accounted for in the relationship. Moreover, there were no pre-delivery measures which were predictive of length of labor. There is some evidence that length of labor defined both psychologically and clinically is not the "continuous" variable it appears to be. Thus, the categorizations of precipitous, normal and prolonged labors may be more clinically real than comparisons within a specified range; for example, a four-hour versus a twenty-hour labor. Moreover, the relative length of the stages may be more salient than the absolute time involved. Psychologically, individual time estimation differences may determine for the woman whether her labors are "long" or "short." Here, too, the factor of expectation may well play a role in psychological time and subjective outcome. There is obviously more research needed on the aspect of length of labor defined both clinically and psychologically.

Feminine Role

Change in sexual desire was found to be related to evaluation of childbirth. While the greater number of women reported no change in desire, those indicating more desire tended to evaluate their experience more favorably than those indicating less desire. Kann [1950] found in his sample that women reporting "no change" behaved more favorably during labor and delivery. It may be that the reported "change" in Kann's study was in the direction of decreased rather than increased desire.

The measure of menstruation failed to demonstrate any relationship to outcome. There were no significant correlations between menstruation and pre-delivery measures although a trend is discernible relating an unfavorable evaluation of menstruation with anticipating an unfavorable labor and delivery. The measure of menstruation in this study included three aspects: evaluation of discomfort, restriction of activity and use of medication. It may be more productive for future research to investigate the relationship between a woman's experience of her first menses and subsequent childbearing expectations and experiences.

General Conclusions

Both Kartchner [1950] and Hingson and Hellman [1954] have indicated that 85 percent of women are satisfied with their childbearing experience. In the present study, almost 60 percent of the sample reported an unfavorable labor and delivery that was worse than they expected. The wide disparity in results may be explained by differences between these studies. In the present study, the sample was restricted to primipara, employed a questionnaire and the "invisible" investigator was not perceived as part of the medical team. In the Kartchner and Hingson and Hellman investigations, the undifferentiated sample of primi- and multiparous women were interviewed by members of the obstetrical staff. These differences in parity, technique and investigator role may account for the discrepancy in findings. Mandy and his associates [1952], for example, are suspicious of the validity of inquiries made by obstetricians following labor and delivery because of the nature of the patient-obstetrician relationship and the continued need for approval of the woman from her physician for her childbearing performance. In a questionnaire survey conducted by Pleshette, Asch and Chase [1956], while two-thirds of the primiparous respondents indicated they would like another labor similar to the one just experienced, over one-half also stated that they did not want to have another baby.

The findings in this study point up the continued need for research in many areas of childbearing. The relationship among the physiological, behavioral, and phenomenological aspects of labor and delivery is compelling. The influence of childbearing on the personality development of the woman, the mother-child relationship and subsequent childbearing experiences have been unexplored. Psychological studies have generally focused upon early aspects of childbearing--the period of pregnancy with the culmination of delivery. There is very little research on the post-partum period of adjustment with its physical, psychological and social stresses and the relationship of these stresses with the woman's experience in labor and delivery.

That over half the respondents found their experience unfavorable indicates the great need for prenatal counseling and preparation for childbirth. The findings in this investigation indicate that preparatory communications be tailored to fit the individualized needs of the patient. Many prenatal programs operate on the assumption that reassurance and alleviation of anxiety result in favorable childbearing experiences. While this type of communication may be successful with highly anxious women, it would defeat its purpose by strengthening the defenses of those who are unable to confront and anticipate the more unpleasant aspects of childbirth. There is some indication that women who avail themselves of existing voluntary prenatal programs are those with adequate motivation to "worry"--in Janis' terminology, the "information seekers" who tend to effect successful crisis resolution, anyway. The efficacy of these programs must be evaluated with regard to the "volunteer" factor.

It was found that, while a majority of women indicated anticipating a favorable experience in childbearing, the statement reflects the pre-stress defenses rather than the emotional reality. The perception of her mother's childbirth experience was found to be a more valid means for assessing a woman's own feelings toward labor and delivery. The findings in this study indicate that a moderately negative communication from the mother tends to result in a favorable experience for the woman, while no communications or extremely negative or positive ones effect unsuccessful experiences. By gaging the individual needs of the woman, more effective guidance and intervention techniques may be developed.

CHAPTER V

SUMMARY AND CONCLUSIONS

The relationship between expectation and subjective outcome in childbearing was investigated. Sixty primigravidae responded to a questionnaire before and after their labor and delivery. Five of the seven hypotheses were confirmed. It was found that:

1. Women indicating that their labor and delivery had been favorable also indicate that the experience was better than expected; and conversely, women indicating that their labor and delivery was unfavorable also indicate that the experience was worse than expected.

2. Anticipation of labor and delivery is positively related to a woman's perception of her mother's experience in childbearing. Women who perceive mother's delivery as favorable expect a favorable experience.

3. Mother's experience as favorable or unfavorable is not predictive of the woman's evaluation of her own experience as favorable or unfavorable.

4. Women receiving no information concerning childbearing from their mothers report poorer outcomes in labor and delivery than women who do receive information from their mothers.

5. Women receiving extreme communications from their mothers report poorer outcomes in labor and delivery than women receiving moderate communications, regardless of the direction of the communication as negative or positive.

Anxiety and denial were not found to be related to subjective outcome. The applicability of the instruments employed to measure these concepts was discussed.

Of 16 social and psychological variables, four were found to relate significantly to two or more measures of outcome: size of family of orientation, birth order, change in sexual desire and social class of procreation. The interrelations between pre-delivery variables was discussed. Further research was suggested to investigate the relationships between physiological, behavioral and subjective evaluations of labor and delivery.

The importance of both the direction and intensity of the mother's communication in its effect upon a woman's evaluation of childbearing was interpreted within crisis theory. That the majority of respondents indicated an unfavorable experience emphasizes the need for prenatal guidance and crisis intervention. Implications for both assessment and prenatal preparatory programs were discussed.

APPENDIX A

INTERCORRELATIONS OF VARIABLES

INTERCORRELATIONS OF VARIABLES

	Criterion					Post-Partum Psychological Measures				Anticipation			
	ELD	ExS	EO	H	BEH	PPA	PPD	PPHy	PPSC	ALD	MIS	MED	AH
ELD	--	.78	.74	.35	.42	.02	-.01	.06	-.11	.21	.52	.15	-.16
ExS		--	.73	.41	.40	.07	.04	.02	-.09	-.02	.34	-.14	-.16
EO			--	.50	.34	-.15	-.15	-.05	-.07	.09	.20	-.09	-.01
H				--	.13	-.20	-.01	-.17	.06	.05	.04	.10	.16
BEH					--	.19	.05	.00	-.12	.17	-.04	.19	-.13
PPA						--	.26	.42	-.38	.20	.02	-.10	.00
PPD							--	.13	-.16	.04	.05	.21	.17
PPHy								--	-.08	.01	-.01	-.10	-.05
PPSC									--	-.33	-.02	-.08	-.07
ALD										--	.01	.47	.25
MIS											--	1.00	-.25
MED												--	.18
AH													--
PNA													
PND													
PNHy													
PNSC													
AGE													
ED													
SCO													
SCP													
SFO													
BO													
P/UP													
SFD													
SP													
TMC													
MEN													
SD													
SBP													
SDP													

INTERCORRELATIONS OF VARIABLES (Continued)

	Prenatal Tests				Background					
	PNA	PND	PNHy	PNSC	AGE	ED	SCO	SCP	SFO	BO
ELD	.06	.08	.09	.09	-.13	-.12	-.18	-.25	.32	.32
ExS	.15	.04	.11	-.20	-.02	-.05	-.08	-.16	.19	.28
EO	-.10	-.10	.01	.01	-.10	-.10	-.03	-.12	.24	.26
H	-.08	.08	-.06	.11	.12	.09	-.04	.02	.06	.16
BEH	.34	-.03	.22	-.11	-.15	-.10	-.25	-.40	.30	.33
PPA	.79	.13	.44	-.45	-.12	-.06	-.02	-.06	-.08	.00
PPD	.19	.79	.02	-.18	.07	.06	-.01	.18	-.19	-.18
PPHy	.40	-.10	.73	-.23	-.13	.09	-.05	-.04	-.14	-.13
PPSC	-.27	0.19	-.23	.73	.08	.00	-.03	.02	.06	.28
ALD	.05	.07	.04	-.13	-.07	-.14	-.19	-.19	-.11	-.11
MIS	-.02	.15	-.11	-.16	-.04	.01	.06	.03	.18	.06
MED	-.12	.20	-.04	-.08	.11	.09	-.05	-.14	-.14	-.05
AH	-.11	.09	-.05	.09	.11	-.08	.08	.18	-.19	-.22
PNA	--	.09	.53	-.57	-.21	-.15	-.16	-.17	.01	.07
PND		--	.02	-.18	-.14	.03	.05	.19	-.01	-.14
PNHy			--	-.23	-.06	.10	-.10	-.09	-.15	.13
PNSC				--	.17	.13	.12	.09	-.08	.06
AGE					--	.64	.40	.44	-.18	.00
ED						--	.57	.49	-.28	-.12
SCO							--	.74	-.10	-.19
SCP								--	-.17	-.25
SFO									--	.55
BO										--
P/UP										
SFD										
SP										
TMC										
MEN										
SD										
SBP										
SDP										

INTERCORRELATIONS OF VARIABLES (Continued)

	Family Planning				Fem. Role		Sick Role	
	P/UP	SFD	SP	TMC	MEN	SD	SBP	SDP
ELD	-.01	-.20	.09	-.02	.11	.28	.02	.04
ExS	-.09	-.13	.06	.12	.08	.31	.13	.05
EO	.02	-.11	.01	-.01	.13	.35	.00	-.14
H	-.13	-.04	-.02	.14	.01	.09	-.03	-.09
BEH	.19	-.11	.05	-.16	.16	.07	.10	.18
PPA	.02	.00	-.01	-.10	.20	.21	.38	.32
PPD	-.16	.18	.02	.10	.14	.01	.12	.29
PPHy	.24	-.03	-.18	-.29	.05	.07	.30	.33
PPSC	-.13	-.03	-.08	.05	-.33	-.14	-.16	-.23
ALD	.02	-.09	.10	-.07	.24	.23	.01	.21
MIS	-.11	.12	.06	.00	-.04	.07	-.15	-.08
MED	-.03	.23	.08	.14	-.10	.05	-.22	.08
AH	-.11	-.10	.06	.18	.13	.05	-.11	.16
PNA	.19	-.05	.04	-.24	.11	.17	.41	.52
PND	.03	.04	.16	-.11	.02	.14	.03	.25
PNHy	.23	-.12	-.12	-.24	.05	.22	.27	.35
PNSC	-.23	.08	-.18	.18	-.21	-.18	-.23	-.44
AGE	-.50	.01	-.31	.02	-.10	-.24	.00	-.22
ED	-.26	.13	-.37	.36	-.19	-.10	-.10	-.27
SCO	-.21	.30	-.38	.28	.09	.03	-.17	-.37
SCP	-.26	.37	-.35	.39	-.08	.07	.01	-.14
SFO	.12	.01	.18	-.15	-.07	.02	-.04	-.04
BO	.14	-.25	.08	-.19	-.02	-.03	.03	-.02
P/UP	--	.00	.30	-.71	.00	.01	.01	.27
SFD		--	-.28	.00	-.09	.17	-.20	.02
SP			--	-.24	.08	.11	-.16	.10
TMC				--	-.07	-.03	.11	-.14
MEN					--	-.04	.06	.14
SD						--	.01	.07
SBP							--	.49
SDP								--

APPENDIX B

PRE-DELIVERY SCHEDULE

INTRODUCTION

Dear Mrs. ____________________

I am interested in finding out some things about women who are about to have their first babies. I would like your help in getting some information about how women feel in their ninth month of pregnancy.

Most of the questions in this questionnaire are simple choice ones in which you circle an answer or mark an X at the answer which you agree with most. There are no right or wrong answers.

There are five sections to the questionnaire. On Part I you are asked for information about your background. On Part II you are asked to guess about how your labor and delivery will be. On Part III you are asked to check off the health problems you had before pregnancy and now during pregnancy. Parts IV and V consist of statements to be answered either True or False. Directions for answering are given before each section.

All information is confidential. Only the investigator tabulating results will have access to the questionnaire. Results will be indicated statistically so that no individual questionnaire can be identified. I am giving this questionnaire to a large group of women expecting their first babies and I hope you will contribute your opinions and ideas.

Please try to finish the questionnaire as soon as possible and return it at the time of your next visit to the doctor. It is essential for the study that the questionnaire be completed before your delivery to be used. If you are due to deliver within the next few days, please phone me and I will pick it up. My phone number is 376-3261, extension 2061. Your name and address may be left with the secretary.

Thank you for your kind assistance.

Sincerely,

(Mrs.) Judy M. Levy
Intern
Department of Clinical Psychology
University of Florida

PART I

PRE-DELIVERY SCHEDULE

Name________________________________ *Date of Birth______ Expected Date of Delivery ______

*Last grade completed at school____________ *Date of marriage __________

*Husband's occupation (If a student, please indicate field he is preparing for of what he intends to do upon graduation)

Title of job ____

Describe the kind of work he does ___________________________

____

*What was your father's occupation at the time you were growing up?

____

*How many brothers and sisters do you have?____________________

*What was your order of birth in your family? (Example: I am the fourth child with 2 older brothers, 1 older sister and 2 younger sisters)

____

What are you hoping to have, a boy or a girl? ___ boy ___ girl

*Did you plan getting pregnant at this time? ___ yes ___ no

*How many children would you like to have? ____________________

*Ideally, how far apart do you think children should be? ____________

*How many hours do you think you'll be in labor and delivery (please make a guess)? ______________________________

---

*Items used in analysis.

PART I (Continued)

DIRECTIONS: Please CIRCLE the number that best answers the following questions.

*1. How have your menstrual periods usually been?

1. No pain or discomfort
2. Hardly any pain or discomfort
3. A little pain or discomfort
4. Somewhat or quite painful or uncomfortable
5. Very painful or uncomfortable

*2. Do you usually have to restrict your activities when you have your monthly period?

1. Not at all--no change in what I do
2. Hardly at all
3. Somewhat--I don't do everything I usually do
4. A great deal of my usual activities are interrupted
5. Entirely--have missed school or work when I've menstruated

*3. Do you take any medicine when you are menstruating?

1. Yes--medicine prescribed by doctor
2. Yes--medicine bought over the counter (like aspirins, etc.)
3. No--I don't take anything

*4. Have you found any changes in sexual desire since your pregnancy?

1. No desire since pregnant
2. Much less desire since pregnant
3. A little less desire since pregnant
4. No change in desire since pregnant
5. A little more desire since pregnant
6. Much more desire since pregnant

*5. How did your mother describe childbirth?

1. Very difficult and painful
2. Somewhat difficult and painful
3. A little difficult and painful
4. A little easy
5. Somewhat easy
6. Very easy
7. Mother never talked about childbirth

---

*Items used in analysis.

PART I (Continued)

6. How did your mother describe her first labor and delivery?

   1. Very difficult and painful
   2. Somewhat difficult and painful
   3. A little difficult and painful
   4. A little easy
   5. Somewhat easy
   6. Very easy
   7. Mother never talked about her first labor and delivery

7. What was your mother's experience in labor and delivery when you were born?

   1. Very difficult and painful
   2. Somewhat difficult and painful
   3. A little difficult and painful
   4. A little easy
   5. Somewhat easy
   6. Very easy
   7. Mother never talked about when I was born.

MPS, page 4, Name ________

PART II

DIRECTIONS: On this part we would like you to GUESS about how your labor and delivery will be and then mark the answers to this. Each item has six choices. You are to put an X on the line which best describes how you think you'll be in labor and delivery. Try to work fast. Do not worry or puzzle over any of the items. It is your first impression, your immediate feeling about the item that we want. Sometimes you may feel as though you have had the same item before. This will not be the case so do not look back and forth through the items. Do not try to remember how you answered any items earlier. MAKE EACH ITEM A SEPARATE CHOICE.

WHAT MY LABOR AND DELIVERY WILL BE LIKE

*1.

______	______	______	______	______	______
very good	pretty good	somewhat good	somewhat bad	pretty bad	very bad

*2.

______	______	______	______	______	______
very uncomfortable	pretty uncomfortable	somewhat uncomfortable	somewhat comfortable	pretty comfortable	very comfortable

*3.

______	______	______	______	______	______
very happy	pretty happy	somewhat happy	somewhat unhappy	pretty unhappy	very unhappy

*4.

______	______	______	______	______	______
will feel very sick	will feel pretty sick	will feel somewhat sick	will feel somewhat healthy	will feel pretty healthy	will feel very healthy

*5.

______	______	______	______	______	______
no pain at all	hardly any pain	slightly painful	somewhat painful	pretty painful	very painful

6.

______	______	______	______	______	______
very nervous	pretty nervous	somewhat nervous	somewhat calm	pretty calm	very calm

---

*Items used in analysis

PART II (Continued)

7.

very fast	pretty fast	somewhat fast	somewhat slow	pretty slow	very slow

8.

very hard	pretty hard	somewhat hard	somewhat easy	pretty easy	very easy

9.

very safe	pretty safe	somewhat safe	somewhat dangerous	pretty dangerous	very dangerous

10.

will yell a lot	will yell somewhat	will yell a little	somewhat quiet	pretty quiet	very quiet

11.

will be awake all the time	will be awake most of the time	will be awake more than asleep	will be asleep more than awake	will be asleep most of the time	will be asleep all of the time

12.

very hard work	pretty hard work	some hard work	a little more waiting than working	a lot more waiting than working	all waiting

13.

very afraid	pretty afraid	somewhat afraid	somewhat unafraid	pretty unafraid	not at all afraid

14.

will be very cooperative	will be pretty cooperative	will be somewhat cooperative	will be somewhat uncooperative	will be pretty uncooperative	will be very uncooperative

15.

others will help a lot	others will help somewhat	others will help a little	will feel a little alone	will feel pretty much alone	will feel mostly all alone

PART II (Continued)

16.

________	________	________	________	________	________
will feel very weak	will feel pretty weak	will feel somewhat weak	will feel somewhat strong	will feel pretty strong	will feel very strong

17.

________	________	________	________	________	________
very short	pretty short	somewhat short	somewhat long	pretty long	very long

PART III*

PSYCHOSOMATIC INVENTORY

DIRECTIONS: The following is a list of health problems. For each problem please circle the letter that best described how often you have had the complaint before you became pregnant, and how often since you became pregnant. Please answer every statement. There are no right or wrong answers and none that are better than others. If you are not sure, or if no answer seems to fit exactly what you want to say, circle the one that comes closest to what you have in mind.

A	S	R	N
OFTEN OR ALWAYS	SOMETIMES	RARELY	NEVER

		BEFORE PREGNANCY	DURING PREGNANCY
1.	Upset stomach	A S R N	A S R N
2.	Indigestion or heartburn	A S R N	A S R N
3.	Stomach cramps	A S R N	A S R N
4.	Nausea (feeling sick to stomach)	A S R N	A S R N
5.	Vomiting	A S R N	A S R N
6.	A bloated feeling after eating	A S R N	A S R N
7.	Tight or knotted feelings in pit of stomach	A S R N	A S R N
8.	Loose bowel movements or diarrhea	A S R N	A S R N
9.	Constipation	A S R N	A S R N
10.	Loss of appetite	A S R N	A S R N
11.	Excessive hunger	A S R N	A S R N
12.	Cravings for special foods	A S R N	A S R N
13.	Tendency to gain weight easily	A S R N	A S R N
14.	Tendency to lose weight easily	A S R N	A S R N
15.	Nosebleeds	A S R N	A S R N
16.	Colds	A S R N	A S R N
17.	Stuffiness in the nose	A S R N	A S R N

---

*HIP Psychosomatic Inventory.

PART III (Continued)

		BEFORE PREGNANCY				DURING PREGNANCY			
18.	"Plugged" or full feeling in my ears	A	S	R	N	A	S	R	N
19.	Feeling of pressure or fullness in the head	A	S	R	N	A	S	R	N
20.	Headache	A	S	R	N	A	S	R	N
21.	Spells of feeling faint	A	S	R	N	A	S	R	N
22.	Fainting	A	S	R	N	A	S	R	N
23.	Dizziness or light headedness	A	S	R	N	A	S	R	N
24.	Sleepiness during the day	A	S	R	N	A	S	R	N
25.	Shortness of breath doing housework	A	S	R	N	A	S	R	N
26.	Shortness of breath lying down	A	S	R	N	A	S	R	N
27.	Pounding or thumping of the heart	A	S	R	N	A	S	R	N
28.	Sudden spells of fatigue	A	S	R	N	A	S	R	N
29.	Hand trembling	A	S	R	N	A	S	R	N
30.	Numbness or tingling of hands or feet	A	S	R	N	A	S	R	N
31.	Cold hands or feet	A	S	R	N	A	S	R	N
32.	Throbbing feelings in stomach or abdomen	A	S	R	N	A	S	R	N
33.	Hemorrhoids (piles)	A	S	R	N	A	S	R	N
34.	Varicose veins (large veins in legs)	A	S	R	N	A	S	R	N
35.	Swelling of hands or face	A	S	R	N	A	S	R	N
36.	Swelling of feet or legs	A	S	R	N	A	S	R	N
37.	Leg cramps	A	S	R	N	A	S	R	N
38.	Weakness or tiredness in legs	A	S	R	N	A	S	R	N
39.	Backache	A	S	R	N	A	S	R	N

PART III (Continued)

		BEFORE PREGNANCY	DURING PREGNANCY
40.	Achiness or tightness through neck and shoulders	A S R N	A S R N
41.	A pulling feeling or "stitch" in one side	A S R N	A S R N
42.	Aching, heavy feelings low down in the abdomen or in the upper thighs	A S R N	A S R N
43.	Soreness under the ribs (on one or both sides)	A S R N	A S R N
44.	Pains down the back of one hip and leg.	A S R N	A S R N
45.	Considerable tenderness of the breasts.	A S R N	A S R N
46.	Vaginal pain	A S R N	A S R N
47.	Throbbing feelings in the vagina	A S R N	A S R N
48.	Vaginal discharge	A S R N	A S R N
49.	Itching or burning of the vagina	A S R N	A S R N
50.	Pain during sexual relations	A S R N	A S R N
51.	Almost uncontrollable urge to urinate.	A S R N	A S R N
52.	Loss of urine when coughing or sneezing	A S R N	A S R N
53.	Urge to urinate during the night	A S R N	A S R N
54.	Itching of the skin	A S R N	A S R N
55.	Skin rashes	A S R N	A S R N
56.	Blushing or flushing of the face	A S R N	A S R N
57.	Hot or cold spells	A S R N	A S R N
58.	Heavy perspiration	A S R N	A S R N
59.	Blurred vision	A S R N	A S R N
60.	Spots before the eyes	A S R N	A S R N

PART IV*

DIRECTIONS: The following is a list of TRUE or FALSE statements. There are no right or wrong answers. Try to answer each statement and do not pass over any. If you are not sure, circle the one that comes closest to what you have in mind. Do not spend time thinking. Answer each immediately, the way you happen to feel at this moment. You may have answered questions like this before, but answer them as you feel NOW.

1. A person should try to understand his dreams and be guided by or take warning from them. 1. True False

2. I have often had to take orders from someone who did not know as much as I did. 2. True False

3. I am an important person. 3. True False

4. I have met problems so full of possibilities that I have been unable to make up my mind about them. 4. True False

5. It wouldn't make me nervous if any members of my family got into trouble with the law. 5. True False

6. When I get bored I like to stir up some excitement. 6. True False

7. It is not hard for me to ask help from my friends even though I cannot return the favor. 7. True False

8. I have been inspired to a program of life based on duty which I have since carefully followed. 8. True False

9. I never worry about my looks. 9. True False

10. I don't blame anyone for trying to grab everything he can in this world. 10. True False

11. At times I have been so entertained by the cleverness of a crook that I have hoped he would get by with it. 11. True False

12. If several people find themselves in trouble, the best thing for them to do is agree upon a story and stick to it. 12. True False

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* MMPI Hypomania Scale, Items 1-46; Taylor Manifest Anxiety Scale, Items 47-72.

PART IV (Continued)

13. At times I feel that I can make up my mind with unusually great ease. 13. True False

14. I believe women ought to have as much sexual freedom as men. 14. True False

15. I am afraid when I look down from a high place. 15. True False

16. My table manners are not quite as good at home as when I am out in company. 16. True False

17. Sometimes when I am not feeling well I am cross. 17. True False

18. I have had periods when I carried on activities without knowing later what I had been doing. 18. True False

19. At times my thoughts have reached ahead faster than I could speak them. 19. True False

20. It makes me impatient to have people ask my advice or otherwise interrupt me when I am working on something important. 20. True False

21. I am always disgusted with the law when a criminal is freed through the arguments of a smart lawyer. 21. True False

22. I know who is responsible for most of my troubles. 22. True False

23. At times I have very much wanted to leave home. 23. True False

24. Some of my family have habits that bother and annoy me very much. 24. True False

25. At times I have fits of laughing and crying that I cannot control. 25. True False

26. I feel that I have often been punished without cause. 26. True False

27. Something exciting will almost always pull me out of it when I am feeling low. 27. True False

28. I have never done anything dangerous for the thrill of it. 28. True False

29. Once a week or oftener I become very excited. 29. True False

PART IV (Continued)

30. At times I have a strong urge to do something harmful or shocking. 30. True False

31. I have had attacks in which I could not control my movements or speech but in which I knew what was going on around me. 31. True False

32. My people treat me more like a child than a grown-up. 32. True False

33. I have had blank spells in which my activities were interrupted and I did not know what was going on around me. 33. True False

34. My speech is the same as always (not faster nor slower, no slurring no hoarseness). 34. True False

35. I sometimes keep on at a thing until others lose their patience with me. 35. True False

36. I have at times stood in the way of people who were trying to do something, not because it amounted to much but because of the principle of the thing. 36. True False

37. I sweat very easily even on cool days. 37. True False

38. I do not blame a person for taking advantage of someone who lays himself open to it. 38. True False

39. I drink an unusually large amount of water every day. 39. True False

40. Some people are so bossy that I feel like doing the opposite of what they request, even though I know they are right. 40. True False

41. When I was a child, I belonged to a crowd or gang that tried to stick together through thick and thin. 41. True False

42. I find it hard to make talk when I meet new people. 42. True False

43. When in a group of people I have trouble thinking of the right things to talk about. 43. True False

44. It makes me uncomfortable to put on a stunt at a party even when others are doing the same sort of things. 44. True False

PART IV (Continued)

45. I work under a great deal of tension. 45. True False

46. I have periods of such great restlessness that I cannot sit long in a chair. 46. True False

47. I am often sick to my stomach. 47. True False

48. I am about as nervous as other people. 48. True False

49. I blush as often as others. 49. True False

50. I have diarrhea ("the runs") once a month or more. 50. True False

51. I worry quite a bit over possible troubles. 51. True False

52. When embarrassed I often break out in a sweat which is very annoying. 52. True False

53. I do not often notice my heart pounding and I am seldom short of breath. 53. True False

54. Often my bowels don't move for several days at a time. 54. True False

55. At times I lose sleep over worry. 55. True False

56. My sleep is restless and disturbed. 56. True False

57. I often dream about things I don't like to tell other people. 57. True False

58. My feelings are hurt easier than most peoples. 58. True False

59. I often find myself worrying about something. 59. True False

60. I wish I could be as happy as others. 60. True False

61. I feel nervous about something or someone almost all the time. 61. True False

62. I have often felt that I faced so many difficulties I could not overcome them. 62. True False

63. At times I have been worried beyond reason about something that really didn't matter. 63. True False

64. I do not have as many fears as my friends. 64. True False

PART IV (Continued)

65. I am more self-conscious than most people. 65. True False

66. I am the kind of person who takes things hard. 66. True False

67. I am a very nervous person. 67. True False

68. Life is often a strain for me. 68. True False

69. I am not at all confident in myself. 69. True False

70. At times I feel that I am going to crack up. 70. True False

71. I don't like to face a difficulty or make an important decision. 71. True False

72. I am very confident of myself. 72. True False

PART V*

Directions: For each of the following items, circle the number which best describes how True or how False each of the statements are for you. There are no right or wrong answers. Please answer all statements. Disregard the numbers of the items on the left-hand side.

	COMPLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COMPLETELY TRUE
1. I have a healthy body. . . .	1	2	3	4	5
3. I am an attractive person. .	1	2	3	4	5
5. I consider myself a sloppy person.	1	2	3	4	5
19. I am a decent sort of person.	1	2	3	4	5
21. I am an honest person. . . .	1	2	3	4	5
23. I am a bad person.	1	2	3	4	5
37. I am a cheerful person. . . .	1	2	3	4	5
39. I am a calm and easy going person.	1	2	3	4	5
41. I am a nobody.	1	2	3	4	5
55. I have a family that would always help me in any kind of trouble.	1	2	3	4	5
57. I am a member of a happy family.	1	2	3	4	5
59. My friends have no confidence in me.	1	2	3	4	5
73. I am a friendly person. . . .	1	2	3	4	5
75. I am popular with men. . . .	1	2	3	4	5
77. I am not interested in what other people do.	1	2	3	4	5

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*Tennessee Self-Concept Scale.

PART V (Continued)

	COMPLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COMPLETELY TRUE
91. I do not always tell the truth.	1	2	3	4	5
93. I get angry sometimes. . . .	1	2	3	4	5
2. I like to look nice and neat all the time.	1	2	3	4	5
4. I am full of aches and pains.	1	2	3	4	5
6. I am a sick person.	1	2	3	4	5
20. I am a religious person. . .	1	2	3	4	5
22. I am a moral failure.	1	2	3	4	5
24. I am a morally weak person. .	1	2	3	4	5
100. Once in a while I put off until tomorrow what I ought to do today.	1	2	3	4	5
38. I have a lot of self-control.	1	2	3	4	5
40. I am a hateful person. . . .	1	2	3	4	5
42. I am losing my mind.	1	2	3	4	5
56. I am an important person to my friends and family. . . .	1	2	3	4	5
58. I am not loved by my family.	1	2	3	4	5
60. I feel that my family doesn't trust me.	1	2	3	4	5
74. I am popular with women. . .	1	2	3	4	5
76. I am mad at the whole world.	1	2	3	4	5
78. I am hard to be friendly with.	1	2	3	4	5
92. Once in a while I think of things too bad to talk about.	1	2	3	4	5

PART V (Continued)

	COMPLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COMPLETELY TRUE
94. Sometimes, when I am not feeling well, I am cross. . . .	1	2	3	4	5
7. I am neither too fat nor too thin.	1	2	3	4	5
9. I like my looks just the way they are.	1	2	3	4	5
11. I would like to change some parts of my body.	1	2	3	4	5
25. I am satisfied with my moral behavior.	1	2	3	4	5
27. I am satisfied with my relationship to God.	1	2	3	4	5
29. I ought to go to church more.	1	2	3	4	5
43. I am satisfied to be just what I am.	1	2	3	4	5
45. I am just as nice as I should be.	1	2	3	4	5
47. I despise myself.	1	2	3	4	5
61. I am satisfied with my family relationships.	1	2	3	4	5
63. I understand my family as well as I should.	1	2	3	4	5
65. I should trust my family more.	1	2	3	4	5
79. I am as sociable as I want to be.	1	2	3	4	5
81. I try to please others, but I don't overdo it.	1	2	3	4	5
83. I am no good at all from a social standpoint.	1	2	3	4	5

PART V (Continued)

	COMPLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COMPLETELY TRUE
95. I do not like everyone I know.	1	2	3	4	5
97. Once in a while, I laugh at a dirty joke.	1	2	3	4	5
8. I am neither too tall nor too short.	1	2	3	4	5
10. I don't feel as well as I should.	1	2	3	4	5
12. I should have more sex appeal.	1	2	3	4	5
26. I am as religious as I want to be.	1	2	3	4	5
28. I wish I could be more trustworthy.	1	2	3	4	5
30. I shouldn't tell so many lies.	1	2	3	4	5
44. I am as smart as I want to be.	1	2	3	4	5
46. I am not the person I would like to be.	1	2	3	4	5
48. I wish I didn't give up as easily as I do.	1	2	3	4	5
62. I treat my parents as well as I should (use past tense if parents are not living).	1	2	3	4	5
64. I am too sensitive to things my family say.	1	2	3	4	5
66. I should love my family more.	1	2	3	4	5
80. I am satisfied with the way I treat other people.	1	2	3	4	5
82. I should be more polite to others.	1	2	3	4	5

PART V (Continued)

	COM-PLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COM-PLETELY TRUE
84. I ought to get along better with other people.	1	2	3	4	5
96. I gossip a little at times. .	1	2	3	4	5
98. At times I feel like swearing.	1	2	3	4	5
13. I take good care of myself physically.	1	2	3	4	5
15. I try to be careful about my appearance.	1	2	3	4	5
17. I often act like I am "all thumbs."	1	2	3	4	5
31. I am true to my religion in everyday life.	1	2	3	4	5
33. I try to change when I know I'm doing things that are wrong.	1	2	3	4	5
35. I sometimes do very bad things.	1	2	3	4	5
90. I find it hard to talk with strangers.	1	2	3	4	5
49. I can always take care of myself in any situation. . .	1	2	3	4	5
51. I take the blame for things without getting mad.	1	2	3	4	5
53. I do things without thinking about them first.	1	2	3	4	5
67. I try to play fair with my friends and family.	1	2	3	4	5
69. I take a real interest in my family.	1	2	3	4	5
71. I give in to my parents. (Use past tense if parents are not living).	1	2	3	4	5

PART V (Continued)

	COMPLETELY FALSE	MOSTLY FALSE	PARTLY FALSE AND PARTLY TRUE	MOSTLY TRUE	COMPLETELY TRUE
85. I try to understand the other fellow's point of view.	1	2	3	4	5
87. I get along well with other people.	1	2	3	4	5
89. I do not forgive others easily.	1	2	3	4	5
99. I would rather win than lose in a game.	1	2	3	4	5
14. I feel good most of the time.	1	2	3	4	5
16. I do poorly in sports and games.	1	2	3	4	5
18. I am a poor sleeper.	1	2	3	4	5
32. I do what is right most of the time.	1	2	3	4	5
34. I sometimes use unfair means to get ahead.	1	2	3	4	5
36. I have trouble doing the things that are right.	1	2	3	4	5
50. I solve my problems quite easily.	1	2	3	4	5
52. I change my mind a lot.	1	2	3	4	5
54. I try to run away from my problems.	1	2	3	4	5
68. I do my share of work at home.	1	2	3	4	5
70. I quarrel with my family.	1	2	3	4	5
72. I do not act like my family thinks I should.	1	2	3	4	5
86. I see good points in all the people I meet.	1	2	3	4	5
88. I do not feel at ease with other people.	1	2	3	4	5

Thank you very much for your cooperation. I appreciate the time you have given and wish you the very best of luck.

Would you be willing to answer a questionnaire of this type following your delivery?

____ Yes   ____ No

I welcome any comments or suggestions you may have about the kinds of information on this questionnaire.

APPENDIX C

POST-DELIVERY SCHEDULE

INTRODUCTION

Dear Mrs. ______________

We are asking the women who participated in a study on women expecting their first babies to complete a second part of a questionnaire. We are again asking your assistance.

There are five sections on the questionnaire. The information we are interested in is, of course, your own experience in labor and delivery. Some parts of the questionnaire you are already familiar with. Please do not try to remember how you answered these questions before but how are are feeling at this time.

All information is confidential. When you complete the questionnaire put it in the envelope and seal it. I will be picking the questionnaires up at various times from the nursing station.

It is essential for the study that you complete the questionnaire while you are in the hospital.

Congratulations to you and thank you for your assistance.

Sincerely,

(Mrs.) Judy M. Levy
Intern
Department of Clinical Psychology
University of Florida

POST-DELIVERY SCHEDULE

Name______________________________ Date and time of baby's birth________

Did you have a boy or girl? _____ How much did the baby weigh? ________

What was the first sign that your labor began?

1. Bleeding
2. Water broke
3. Labor pains started
4. Other (please indicate) ________________

Please indicate the DAY and the TIME that you first realized you were beginning to go into labor.

____

When did you decide to come to the hospital? What was happening that made you decide to come to the hospital?

How were the contractions or pains when you were first admitted to the hospital?

1. No pain
2. Mild paind
3. Moderate pains
4. Very hard pains

*How long was your labor and delivery? ______________________________

How long do you think you were in the labor room?_______________________

In the delivery room?____

When would you like to have your next baby? ___________________________

How many children would you like to have?______________________________

*How would you rate your labor and delivery?

1. Much worse than I expected
2. Somewhat worse than I expected
3. A little worse than I expected
4. Exactly what I expected
5. A little better than I expected
6. Somewhat better than I expected
7. Much better than I expected

---

*Items used in analysis.

PART II

DIRECTIONS: On this part we would like you to describe your labor and delivery. Each item has six choices. You are to put an X on the line which best describes how you experienced labor and delivery. Try to work fast. Do not worry or puzzle over any of the items. It is your first impression, your immediate feeling about the item that we want. Sometimes you may feel as though you have had the same item before. This will not be the case so do not look back and forth through the items. Do not try to remember how you answered any items earlier. MAKE EACH ITEM A SEPARATE CHOICE.

WHAT MY LABOR AND DELIVERY WAS LIKE

[Semantic Differentials Scales of Pre-Delivery Schedule were Readministered. See Part II of Appendix B.]

PART III

DIRECTIONS: On this part we would like you to describe your experience for each of the stages of labor: labor itself, the delivery, and following the delivery. For each of the questions write in the numbers on the lines corresponding to the three time periods. For each question then, there will be three separate answers.

*LABOR DELIVERY RIGHT AFTER DELIVERY

*1. Did you cry, scream or moan? 1. ____ ____ ____

1. Not at all
2. A little
3. Moderately
4. Much
5. Very much

*2. Did you move around, writhe or toss about? 2. ____ ____ ____

1. Not at all
2. A little
3. Moderately
4. Much
5. Very much

3. How much discomfort or pain did you have? 3. ____ ____ ____

1. None at all
2. Slight
3. Moderate
4. Considerable
5. A great deal

*4. Did you let the nurses or doctor know about your discomfort or pain? 4. ____ ____ ____

1. Not at all
2. A little
3. Moderately
4. Much
5. Very much

*5. Did you ask for medication or anesthesia? 5. ____ ____ ____

1. Not at all
2. Once or twice
3. More than twice but not a lot
4. A good deal
5. Repeatedly

---

*Items used in analysis.

PART III (Continued)

*LABOR DELIVERY RIGHT AFTER DELIVERY

6. Were you nervous or afraid? 6. _____ _______ __________
   1. Not at all
   2. Slightly
   3. Moderately
   4. Considerably
   5. Extremely

7. Were you angry at any time? 7. _____ _______ __________
   1. Not at all
   2. Slightly
   3. Moderately
   4. Considerably
   5. Extremely

8. Did you feel embarrassed or ill at ease at any time? 8. _____ _______ __________
   1. Not at all
   2. Slightly
   3. Moderately
   4. Considerably
   5. Extremely

9. How difficult do you think your stages were? 9. _____ _______ __________
   1. Not at all difficult
   2. A little difficult
   3. Moderately difficult
   4. Considerably difficult
   5. Extremely difficult

*10. How cooperative were you? 10. _____ _______ __________
   1. Not at all
   2. Slightly
   3. Moderately
   4. Considerably
   5. Extremely

Do you recall any specific incidents during your labor and delivery that frightened you, annoyed or irritaed you, made you angry, or embarrassed you?

---

*Items used in analysis.

PART IV

[MMPI Hypomania Scale and Taylor Manifest Anxiety Scales were readministered. See Part IV of Appendix B.]

PART V

[Tennessee Self-Concept Scale was readministered. See Part V of Appendix B.]

Where did you get most of your ideas about what labor and delivery was like?

1. Mother
2. Relatives like sister, aunts, cousins
3. Friends
4. Doctor
5. Read books or magazines
6. Studied about it in school
7. Attended prenatal classes
8. Didn't know anything till I had my baby
9. Other (please indicate) ____________________________

*Compared to what you've heard from other women, how would you rate your labor and delivery?

1. Much worse than other women's
2. Somewhat worse than other women's
3. A little worse than other women's
4. Exactly like other women's
5. A little better than other women's
6. Somewhat better than other women's
7. Much better than other women's

Thank you again for your assistance. I wish the best of luck to your and your family.

The results of this study will hopefully be available in the next six months or so. If you are interested in this please write your name and address below.

Thank you again.

(Mrs.) Judy M. Levy

Comments:

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*Items used in analysis.

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BIOGRAPHICAL SKETCH

Judith Moskowitz Levy was born in Wilmington, Delaware, on October 8, 1934. She was educated in the public schools in Brooklyn, New York, and was graduated from Erasmus Hall High School. She received her Bachelor of Arts degree, cum laude, from Brooklyn College in June, 1955. In June, 1961, she received the Master of Arts degree with a major in sociology from Tulane University; and in December, 1966, was awarded a Master of Arts degree with a major in psychology from the University of Florida. She has been variously employed as a social worker for the New York Psychoanalytic Institute; as a research assistant in the School of Public Health at the University of North Carolina; as a social investigator for the State Welfare Departments in Louisiana and Florida; and as a consultant with the Orleans Parish School Board in the Institute of Desegregation. She is presently a Psychologist with the Parent Child Center in New Orleans.

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This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Arts and Sciences and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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